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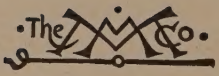
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THE PROBLEMS OF PHILOSOPHY

BY

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WITH A PREFACE BY

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PREFACE

PROFESSOR HÖFFDING of Copenhagen is one of the wisest, as well as one of the most learned of living philosophers. His "Psychology," his "Ethics," and his "History of Modern Philosophy" have made his name known and respected among English readers, though his admirable "Philosophy of Religion" still calls for a translator. The following little work is, so to speak, his philosophical testament. In it he sums up in an extraordinarily compact and pithy form the result of his lifelong reflections on the deepest alternatives of philosophical opinion. The work, to my mind, is so pregnant and its conclusions so sensible — or at least so in accordance with what I regard as sensible — that I have had it translated as a contribution to the education of our English-reading students.

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Rationalism in philosophy proceeds from the whole to its parts, and maintains that the connection between facts must at bottom be intimate and not external: the universe is a Unit, and the parts of Being must be interlocked continuously. Empiricism, on the other hand, goes from parts to whole, and is willing to allow that in the end some parts may be merely added to others, and that what the word 'and' stands for may be a part of real Being as well as of speech. For radical rationalism, Reality in itself is eternally complete, and the confusions of experience are our illusion. For radical empiricism, confusion may be a category of the Real itself, and "ever not quite" a permanent result of our attempts at thinking it out straighter. Professors of Philosophy are almost always rationalists; and the student, passing from the street into their lecture-rooms, usually finds a world presented to him, so abstract, pure, and logical, and perfect, that it is hard for him to see in it any resemblance of char-

acter to the struggling and disjointed sum of muddy facts which he has left behind him, outside.

Now the peculiarity of Professor Höffding is that whereas he has the *manner* of a rationalistic professor of Philosophy, being as abstract and technical in his style of exposition as any one can wish, his results, nevertheless, keep in touch with the temperament of concrete reality, and he allows that 'ever not quite' may be the last word of our attempts at understanding life rationally.

The word 'rationally' here denotes certain definite connections which Professor Höffding also sums up under the name of 'continuities.' He opposes to them the notion of the 'irrational,' as that residuum of crude or 'alogical' fact, '*mere*' fact, that may remain over when our attempts to establish logical continuity among things have reached their limit. The conjunction 'and' would be the only bond here between the continuous and the irrational portion

of Reality. Professor Höffding is in short an empiricist and pluralist, although he prefers to call himself a 'critical Monist.' He means by the word 'critical,' here, to indicate that the continuity and unity of Reality are at no time complete, but may be yet in process of completion. Our thought, which is itself a part of Reality, is surely incomplete; but in endeavoring to make itself ever more continuous and to see the world as ever more rational, it works in the direction of more continuity; and the whole of Creation may analogously be in travail to get itself into an ever more continuous and rational form.

Empiricist matter presented in a rationalist's manner — this to my mind gives their distinction to the pages that follow. They form a *multum in parvo* so well calculated to impress and influence the usual rationalistic-minded student of philosophy, that I put them forth in English for his benefit.

It takes, I confess, some little knowledge

of philosophic literature to appreciate the far-reaching significance of some of our author's paragraphs, and to distribute emphasis properly among them. They are too brief and abstract for the unguided beginner. For his benefit let me barely indicate some of the book's positions which seem to me particularly noteworthy.

I have spoken of the notion that since the world is incomplete anyhow, so far as our thought goes, it may also in other ways be only approaching perfection. Perfection, in other words, may not be eternal; rather are things working toward it as an ideal; and God himself may be one of the co-workers. Time, on this view, must be real, and cannot, Professor Höffding says, be banished, as ultra-rationalists pretend, from absolute reality.

With this general position goes what our author calls the 'dynamic' notion of Truth, as opposed to the 'static' notion. I should interpret this as equivalent to saying that 'knowledge' is a relation of our thinking

activities to reality, and that those activities are 'truest' which *work* best — the term 'work' being taken in the widest possible number of senses. Thought is thus an instrument of adaptation to, and eventually of modification of, its objects. Its duty may, but need not always, be merely to copy the latter. In all this, Professor Höffding aligns himself with the 'economical' school of scientific logicians, and (if I mistake not) with the recent 'humanistic' and 'pragmatistic' literature of our own language.

Professor Höffding's 'critical' (as opposed to absolute) Monism means that although you cannot exhaustively account for any item of fact by referring to the whole of which it is a member, yet so much of *what we call* a fact consists of its relations to other facts, that we are equally unable to see any fact as wholly independent. The part in itself remains for us an *abstraction*, and from a whole which itself is for us a mere *ideal*. Neither is given in

experience, nor can either be adequately supplied by our reason; so that, both above and below, thought fails to *continue*, and terminates against an 'irrational.' This in the end *may* mean that Being is really incomplete, in any sense in which our logic apprehends completeness.

No one better than Professor Höffding in these pages has shown how all our attempted definitions of the Whole of things, are made by conceiving it as analogous in constitution to some one of its parts which we treat as a type-phenomenon. No one has traced better the logical limitations of this sort of speculation. We never can absolutely prove its validity. We can only paint our more or less plausible pictures; and philosophy thus must always be something of an *art* as well as of a science.

The fundamental type-phenomenon is the fact that we can, to some degree at any rate, make things mentally *intelligible*. Being and our mental forms are thus *not incongruent*. And as our mental forms

act in us as unifying forces, so we must suppose that the energy in Being that tends toward unity *in the thought-part of Being*, tends, by analogy, toward unity elsewhere also. This puts Professor Höffding in a general attitude of harmony with idealistic ways of thinking. But he still insists that Being can never be expressed in thought without some blind remainder.

In Ethics the same antinomy or conflict between part and whole occurs which we find in the other problems. The single act or agent must have independent value, yet must also be a means toward farther values. Neither from any whole or any parts concretely given can we deduce a continuous ethical system. Such a system is still a vacant abstraction; and both in Being and in concrete thinking the kingdom of goods must be regarded as still engaged in the making.

Our author's conception of religion is one of his best strokes, in my opinion. He defines it as a belief in the ultimate 'con-

servation of values,' or rather of what has value. This seems to me to cover more facts in the concrete history of human religions than any definition with which I am acquainted. Yet one easily sees how experience may change our ideas of what the most genuinely ideal values are; so the 'philosophy' of religion, less than any other philosophy perhaps, is entitled to become dogmatic. The belief in the conservation of values has itself a value, for it can give an energy to life. Being so vital a function, it will always be sure to find some form for itself functionally equivalent to the religions of the past, whether that form be called by the name of religion, or be called by some other name.

An unfinished world then, with all Creation, along with our thought, struggling into more continuous and better shape — such is our author's general view of the matter of Philosophy. I have doubtless emphasized the points that appealed most to my own personal interests. Others — and there

are many which are fundamental — I must leave the reader to find out. I need only add that I have carefully revised the translation, and that (though it may not be elegant) it is, I believe, faithful to the author's meaning throughout.

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THE PROBLEMS OF PHILOSOPHY

PHILOSOPHICAL PROBLEMS

INTRODUCTION

PHILOSOPHICAL ideas, as the history of philosophy shows, may have a double significance. They may attempt to propound, to discuss, or to solve certain problems; and they may represent symptoms of certain tendencies of the intellectual life of man. Between these two phases of philosophy a constant interaction takes place; for the fact that a problem is propounded and treated in a certain way, may be considered as a symptom of a peculiar intellectual movement; and, on the other hand, the sting of problems excites intellectual movements which otherwise would not arise. In this interaction we

discover an intimate connection between personal life and scientific inquiry. This connection prevails to a greater or less degree in all branches of science; but from the nature of the case it is brought out especially as we approach the border-lines of human knowledge. It appears more clearly in mental than in natural science, and most clearly in philosophy, whose problems are essentially border-problems.

There is a current opinion that personality and scientific research are antagonistic. Hence, on the one hand, the student would fain doff his personality when he thinks scientifically; and, on the other, he lives as if scientific methods and results had no significance for the freer side of his personal development. I myself, in my youth, swore allegiance to such a view, under the overpowering influence of S. Kierkegaard. If I have finally broken its hold on me, I venture to say that that is because I have become better acquainted with both science and the personal life.

The desire to investigate things is a special form of the striving after consistency with one's self under all one's manifold and changing experiences. This effort manifests itself in formal as well as in real science, — in the impulse to form series of concepts in which one member develops itself by inner necessity out of the preceding, as well as in the effort to combine our actual experiences into the closest and richest forms of continuity. Personality consists pre-eminently in the inner unity and connection of all our ideas, feelings, and strivings. It does not abdicate its life when it devotes itself to research. It begets, on the contrary, in science, as in art, an objective image of itself. Only thus can we understand the inner character which the passion for knowledge assumes, that *amor intellectualis* felt by the seeker as he works up to the pinnacle from which the particulars disclose themselves as parts of one great whole. That holy fire, which, in spite of all smothering and repression ever anew

sets thought ablaze, finds in this its only explanation.

But personality in turn needs refining by the scientific process, since it must bend to the objective connections of thought, the fixed order of things within which every individual being has its appointed place. Freedom is won through hard obedience to the truth. It is the noble prerogative of personality that it can discover the great laws that condition its own conservation, that rightly determine its desires, and fix the conditions for their realization. There is a science of the personal life as of everything else; like all other sciences it is, no doubt, incomplete, but in every earnest investigation into the form and demands of the personal life, it is presupposed. Among present day philosophers, Charles Renouvier lays the greatest stress on the antithesis between the demands of thought and personality.[1] Yet even he calls for a *rational* conception of personality, and cannot reject all the analogies between the two.

Such an analogy is thrown into clear relief when one tries to formulate the chief problems with which philosophical inquiry is concerned. These problems arise from the side of personality as well as from the side of science.

In my "History of Modern Philosophy" I have tried to show, in a purely historical way, that there are four such chief problems, namely: I. The problem of the nature of consciousness (the psychological problem); II. The problem of the validity of knowledge (the logical problem); III. The problem of the nature of being (the cosmological problem); and IV. The problem of value (the moral and religious problem [2]). In this treatise my task is to point out the inner connection between these problems. At bottom, they are one and the same problem, appearing in different forms and applications.

The motives which may induce philosophical inquiry are very various. Often the motive is ethico-religious; consequently,

practical and personal. If so, one would begin with the fourth problem. It soon becomes plain, however, that its consideration demands insight into the nature of consciousness, into the conditions of knowledge, and into the constitution of that existence which the ethical personality shares with other things. If, on the other hand, an interest in observation impels one, one will begin with the psychological problem, as has happened in the empiricist philosophy under its various forms. But if what we seek is rather to distinguish between what we can know and what we cannot know, we shall begin with the problem of knowledge, the path travelled by the critical philosophy. If, finally, one has full confidence in the possibility of thought and seeks a rounded world-view, one will follow the lead of the dogmatic and speculative schools and begin with the problem of Being. It naturally has not a little bearing on the form and kind of treatment, which problem one begins with; for one problem is easily

overshadowed by another. In a study of comparative problems, to which in these pages I make a contribution, it is important to give each problem due recognition. Accordingly, it is my purpose — in harmony with the above indicated analogy between personality and science — to begin with the psychological problem, and then proceed to the examination of the nature of scientific knowledge, and to the problem of knowledge in general. If one puts the problem of Being third in the series, the transition to it comes quite naturally, either from personality, which is one part of all being, or from science, whose function it is to lead us to a view of the existing world. The three problems thus far named would be set for us if man were only a purely intellectual, cognitive being. The fourth problem arises on account of the relation in which man, as a feeling and willing creature, stands to Being. Thus are the chief problems of thought linked with the theoretical and practical interests of man.

More important than the question as to the order of the problems, is the question whether or not they can be reduced to one underlying problem. Such a possibility seems to me to lie in the *significance which the relation between continuity and discontinuity bears to each one of these problems.* This relationship involves the deepest interests of personality as well as of science. In both realms there is, as already noted, a striving after unity and connectedness, and, in so far, the discontinuous appears as an insurmountable obstacle. On the other hand, it is discontinuity (distinction of time, of degree, of place, difference of quality, of individuality) which more than anything else brings new content, releases locked powers, and opens up the greatest tasks in the realm of life no less than in the realm of science. Thus it would appear that neither of the two elements is the only accredited one. It will be of unquestionable interest to follow out their relations to each other under the four points of view furnished by our four chief problems.

In the philosophy of the nineteenth century the significance of the problem of continuity was thrown into prominence by the fact that the various schools fought over it in turn. In the first half of the century, philosophical idealism after its fashion asserted the continuity of being and looked down on experimental science on account of its fragmentary character. Meanwhile, Positivism (as Comte and Stuart Mill expounded it) emphasized the discontinuity of different groups of phenomena. Now, toward the end of the century, realism, supported by the evolutionary hypothesis, champions continuity, while the idealistic school is inclined to emphasize the unavoidable discontinuity of our cognition.[3] So the schools change places in the great arena on which the battle of truth must be fought out. Whenever a point of view ceases to yield significant results, the inquiry involuntarily seeks out a new one, and thus from ever-changing points of view thought advances to clearness. The different

schools replace one another, like runners at the ancient torch festival, but the torch remains ever the same. And if none of the schools hitherto active has fully laid bare the central core of all these philosophical problems, there is all the more reason for us to work in order that greater clearness may be shed.

CHAPTER I

THE PROBLEM OF CONSCIOUSNESS

I

IF we begin the discussion of philosophical problems with the examination of the concept of personality, we enter into psychology, and have to determine first of all the relation of psychology to philosophy. We can here certainly pass by the notion maintained by Herbart and Lotze, that psychology, on account of the outlook over the problem of being to which it leads, is dependent on metaphysics or cosmology. On all sides there is a strenuous effort today to establish the independence of psychology. But even where this effort is most pronounced, opinions as to the place of psychology are diverse.

II

Some think that psychology is identical with philosophy in general, and that epistemology, metaphysics, æsthetics, and ethics are its different parts. Fries and Beneke took this view, and at the present time Th. Lipps maintains it.[4] But it is an untenable position, partly because the personal life is only one of the subjects which the philosopher can pursue, and partly also because psychology, in common with all other sciences, presupposes the general forms and principles of knowledge. The problem of consciousness necessarily points beyond itself to the problem of being and the problem of knowledge. In spite of all its independence, psychology is only one branch of the tree of knowledge. Psychology can therefore not include the whole of philosophy, but can only remain one of its parts. It is, however, entirely proper to begin with psychology, since it describes the place and the presuppositions from which we take our bearings in being.

But, after all, does psychology belong to

philosophy? Is it not a special science, which has no more to do with philosophy than has natural science or history? The special methods — the experimental, the physiological, and the historical — which the most recent psychological research employs, appear to indicate, — do they not? — that psychology stands at the very point of becoming a special science, and that it must, therefore, be sundered from philosophy! To this I reply that in spite of all its special methods, psychology always presupposes the capacity of self-observation. It is subjective, descriptive, and analytic psychology which sets their several problems to the special methods. Here we come upon what psychology as a special science and philosophy have in common. Philosophy must lean upon some general idea of the nature of conscious life, in order to be in a position to treat her problems of knowledge, of being, and of value. It is from personality experienced as knowing, as estimating worth, and as constituting a

part of all being, that these problems emerge. A conception of personality is thus presupposed, which special methods cannot yield. These methods investigate single manifestations of the conscious life, and their investigations must be coördinated before a conception of personality can exist.

But forthwith arises the basic problem of the psychological realm: Is it possible to arrive at a conception of personality by way of experience? *Does our conscious life form a totality, a continuum, a little world for itself, or is it only an aggregate, a sum of elements and fragments?* This is the question which philosophical psychology (or the philosophy of psychology, if you will) throws out. In handling it, psychology avails itself partly of self-observation and inner description, partly of the results of the experimental, physiological, and historical methods.

Experience shows us longer or shorter breaks in our conscious life; there are un-

conscious intervals between the conscious states. Upon closer examination of the single states of consciousness, we can discern within them different elements, which are repeated in other states, so that the single state no less than the collective consciousness would appear to be a union of elements or fragments, and these elements would seem to be the underlying reality. Consciousness would then be an aggregate or synthesis of single rays. It would not exhibit a psychical continuum such as is presupposed in the conception of personality.

Right here it should be noted that we can never determine with entire certainty whether or not the analysis has really probed to the bottommost elements. There is always the possibility that the elements before which we halt and out of which we are inclined to think consciousness is composed, are themselves, in turn, composite. And thus if we could pierce down to yet simpler elements, of the second or third order, we

should discover a continuity which cannot be proved so long as we go no further than the elements of the first order. Our sensations, which we have been inclined to consider a kind of psychical atoms, have been shown by recent researches of various kinds to bear traces of processes of composition of a still more elementary sort than those processes which observation more directly shows us.[5]

This is, however, only a preliminary survey, leading to no decisive results, since a champion of discontinuity could very well use it to show that all apparent continuity is only provisional. But it is a fact of more decisive significance that the so-called psychical elements are always determined by the relations in which we find them, and that it is a pure abstraction to attribute to them, apart from these relations, an individuality which they only possess when thus related. This is the fundamental idea on which my own account of Psychology is built. All psychic life works in naïve fashion, and directly and involun-

tarily gives birth to connected phenomena and events, which analysis afterwards with more or less skill tries to break up into 'elements.' For the truth about sensations we can appeal to Fechner's law and the law of contrast, according to which the intensity and the quality of each sensation is determined by the whole connection in which it stands. The connection cannot be conceived as the product of the psychical elements, since they only exist as the sensations which they are by virtue of their connection. If they were in another connection, they would not be the same sensations. An analogous case is the behavior of ideas. The association of ideas finds its final explanation in the fact that the isolation of single ideas is unnatural. There is always a tendency — the livelier the consciousness, the stronger the tendency — toward a rounding out or widening, by means of which the single ideas enter into combination with other ideas according to fixed laws. The so-called

association-psychology (among whose adherents I have sometimes been unjustly numbered) conceives the single ideas as independent atoms, which in a purely external, mechanical fashion are brought into combination. The fact is just the reverse: in the process of association it is the connected whole which exercises its power over the single ideas. The ideas never appear in a complete isolation such that their union could stand as a mechanical product. Here, also, we see that analysis always presupposes synthesis. This also appears clearly in thought, properly so called, if we compare the formation of judgments with that of concepts. They always presuppose one another; since our judgments, which are but combinations of concepts, can only be complete when the combined concepts are complete; while on the other hand, the formation of a concept presupposes a series of judgments, by which the mutual relations of its different elements is determined. Here, again, it is evident that the whole

and the parts mutually determine one another. There are no thoroughly isolated concepts which only afterward allow themselves to be bound together into judgments.

Here crops out an antinomy which is closely connected with the existence of consciousness, and is peculiar to the concept of personality. Consciousness and personality can as little be explained as the products of previously given elements, as organic life can be explained as the product of unorganic elements. On the other hand, consciousness and personality, just like organic life, come into being through a perpetual synthesis of elements not originally begotten by themselves. It is this antinomy which makes the genesis of life and of personality so great a riddle.[6]

So far, we have only considered the more formal connections of consciousness. But in every consciousness there is a goal that is striven towards, a dominant interest that makes or tries to make everything else subservient to itself. This dominant in-

terest — call it the main purpose if you will — may change at different periods of life; but the tendency for it to develop will always be present, and it will in greater or less degree stamp its impress upon all the elements of consciousness and give them their bent. This interest in the main purpose constitutes the *soul* of the individual, if we understand by *mind* the more formal intellectual part of him.

The relationships thus far examined demonstrate that the concept of personality must always constitute the central thought of psychology. When analysis and special methods make their dissections, and attempt to isolate single elements or instants, we should grant that they are justified, just as mathematicians are justified in determining an irrational number by adding decimal to decimal. But the irrational relation of the whole to the elements remains.

In the idealistic camp there has often been an inclination to consider the concept of personality as settled, and to operate with

it in cosmological speculation. This is to overlook the fact, emphasized especially by the Positivist school, that what we are so industriously working for is just to build up a concept of personality, just to spell out a psychological conception of the whole, even as biology is spelling away at a definition of life. But just as biology, in spite of its recognition of the individuality of the living organism, knows no other method than to seek, by means of observation, experiment, and analysis, to understand the complex processes through the simpler; so in like manner psychology, however earnestly it may assert the synthetic character of consciousness, can only bring into play the methods common to all sciences, — observation, experiment, and analysis. The concept of personality stands as the ideal toward which we steer, as the enduring problem to whose elucidation all special methods contribute.[7]

The irrational here as everywhere not only places the limit, but also sets us the

task, the ever new task. Descriptive psychology especially tends to lay stress on the connected whole in and with which the psychical manifestation appears. It will always — but especially in respect to the higher or more developed manifestations of consciousness — preserve its independence and significance as over against experimental psychology. In fact, experimental psychology invariably has its tasks set for it by descriptive psychology. At the same time, descriptive psychology serves as a corrective to experimental psychology which, by its very methods, easily tends to overisolate single elements, to neglect the spontaneity of the conscious life, and to overemphasize the external symptoms of inner states.[8] On the other hand, descriptive psychology can levy tribute from experimental psychology, turning whatever light it may yield as to the more elementary psychological processes, by analogy, upon the nature of the higher processes, and thus giving greater completeness and accuracy to the description.

Descriptive psychology comes very near to being an art; indeed, it is verily an art: while experimental psychology approximates to a science. But they are not in principle different from one another. They are not separated by a chasm, as Münsterberg [9] recently would maintain, making the one a science of worth, the other a natural science; holding that the one deals with the concept of freedom, the other with the concept of causality. By freedom Münsterberg understands the possibility of acting according to purpose. Then should not the psychical event, by which a man sets himself a purpose for whose accomplishment he will work, be an object of scientific psychology? And can such an event be understood except by being investigated in its connection with the simpler processes which take place in the constitution of pleasure and pain, joy and sorrow, or in the union and separation of ideas? Here there are a multitude of experiences to be gone through with and collected; it is a question of following out

a development step by step, of determining the different degrees of consciousness, and the various impulses and motives which accompany them. We must, furthermore, distinguish between the various individual types which the form and direction of the volitional life may show. A comparative psychology of individuals can supply just the assistance needed in order to understand the development which takes place in the consciousness of a particular individual. An utterly unnatural distinction, therefore, is set up if a sharp antithesis between the categories of the personal and the psychophysical is asserted; especially is this true when this antithesis is made the cornerstone of an antithesis between 'truth of life' and 'truth of science.'[10] Is it not just the function of science to understand life — even although a complete understanding may always remain an ideal, — and does not life itself furnish science with all her empirical materials? Thus there is an abiding relation of interaction instead of an abso-

lute antithesis. And there are many connecting links and bonds between the separation of the elements of Being undertaken by science and the complex interplay of all the elements presented by life, an interplay which only art can set forth in all its fulness.

2

But there are still grave difficulties remaining in the scientific treatment of the phenomena of consciousness. The proof of a continuity in the processes under investigation is necessary to a true understanding. We should reach the ideal of psychology not only if we could secure such a complete description of states of consciousness that each state would stand as a proper member of the whole psychical process, but also if we could reduce the differences of the changing states to such simple forms that any succeeding state would appear as the continuation or as the transformation of the preceding state. The prospect of reaching

this ideal, however, is blocked by the discontinuity which experience appears to interpose. There are unconscious intervals between our conscious states — in swoons, in dreamless sleep (in so far as there is any), and there are qualitative differences between the different states and elements of consciousness, so that each state and each element, if we adhere to a strictly introspective view, appears to arise from nothing. Then between the different individual consciousnesses there is always an abrupt and striking discontinuity: one consciousness can even less be derived from another than one state of consciousness from another.

This relation of psychical discontinuity stands out with peculiar sharpness when it is set over against the continuity and the equivalence which material manifestations present, and which was noted very early in philosophy. The persistence of matter in spite of all its transformations was a common assumption with the Greek natural philosophers, and this assumption has been

confirmed by modern chemistry. In sharp contrast with this is the separation of minds from each other. When Descartes applied the concept of substance to the psychical as well as to the physical realm, he did it with the important distinction that many soul-substances, but only a single material substance, were assumed.[11] Thereby he sharply and decisively asserted psychical discontinuity in antithesis to physical continuity. In the history of philosophy, it is only in a partly or wholly mystical sense that we find such an assertion of the continuity of soul-life that the single consciousness may be conceived as bearing a relation to the universal soul-substance like the relation of single bodies to the universe of matter. So Averroes, Spinoza, and Hegel.[12] In recent years attention has been fixed less on the discontinuity between the individual consciousnesses than on the discontinuity within each consciousness, and two lines of consideration, preëminently, have led to a more critical exposition of this modern problem.

Thanks to the reform which swept through physiology in the middle of the nineteenth century, this science has attained to a fuller consciousness of its methods and of its independence. Consequently, it now demands that every brain-state shall be explained through the preceding states of the brain and of the organism, — that physiological phenomena shall be explained solely by physiological causes, or else by activities of the physical environment continued in the organism. According to strict scientific methods, every material state within and without the organism finds its explanation as soon as we make it clear that each state has arisen from the transformation of energy released in the preceding states. When one brain-state succeeds another we reach an explanation of their relation only when we have demonstrated that all the energy released in the first has been transformed into tissue-building, warmth, electricity, motor impulses, etc. It is certainly difficult to think out the arrange-

ment of such an experiment; but the carrying out of the physiological method would indicate the solution. Even the so-called neo-vitalism recognizes no other method of investigating. Spinoza confirms this when he says that an appeal to the interference of the soul in order to explain a corporeal state is an admission that we do not know its cause. If an experiment were to indicate that at the origin of an organic state energy came into being or disappeared without any physical equivalent, we should certainly rather believe that the experiment was in error than congratulate ourselves over the result. "The principle of the conservation of energy," says Maxwell,[13] "has acquired so great scientific weight, . . . that no physiologist would feel any confidence in an experiment which showed considerable difference between the work done by an animal and the balance of the account of energy received and spent." A carrying out of physiological methods conceived in this spirit will give evidence of

an ever greater continuity of the organic processes to which the manifestations of consciousness show themselves actually to be united.

Physiology is therefore far more favorably disposed toward the principle of continuity than psychology ever can be, and thus it appears to be a point very well taken when Karl Lange demands that all psychological definitions be replaced by physiological.[14] Psychical manifestations would then stand only as provisional indices or symptoms.

The other view fits closely on to the one already cited, but is a kind of general theory of knowledge. It rests upon the proposition that a complete understanding can be won only where the relation between cause and effect can be reduced to a relation of identity or continuity, so that a quantitative equation between the phenomena bound up in the causal relation becomes possible. This is an assertion of the ideal concept of causality (as contrasted with the empirical laws of causation) as the *ground* through

which the qualitatively different manifestations are bound together into an invariable succession. I postpone a closer examination of both these concepts till we reach the problem of knowledge. For the present, I will only remark that we unquestionably obtain a more complete understanding where the ideal concept of causality can be carried through, than where we must abide by empirical laws of causation—and then often enough not see clearly into their application. Material as well as mental manifestations display qualitative distinctions; but in the material sphere it is possible to conceive these qualitative distinctions as quantitative, by means of the law of the conservation of energy and of matter, while nothing similar in the psychical sphere is possible. Therefore, it is assumed that the correct psychological method consists in *substituting* the physiological manifestations for the corresponding psychical ones; that this is the only way of replacing qualitative determinations by

quantitative, and so of carrying out a strict causal connection. This conception of the psychological problem is applied with rigor by Richard Avenarius in his acute *Kritik der reinen Erfahrung*. He demands as the condition of a complete scientific understanding a tracing back of 'the dependent vital series' (by which he understands psychical states) to 'the independent vital series' (the corresponding physiological states) through which alone it becomes possible to reduce empirical differences to the lowest possible degree, or as Avenarius expresses it, to reach a 'heterotic minimum.' Münsterberg inclines to a similar view, as he has expressed himself in his "Psychology and Life." His thesis is this: Since psychical manifestations are not quantitative, they cannot be members of a causal series.[15]

In excuse of those who thus try to reduce psychology to physiology in order that a scientific psychology may be made possible, — who, therefore, virtually wish to

abolish psychology in order to make it into a science, — it is to be noted that the actual discontinuities and qualitative differences of psychical phenomena will always more or less oppose limits to the carrying out of a strictly scientific psychology. Whether the way pointed out by such writers leads to the goal, and whether the method recommended does not contain a palpable self-contradiction — these are other questions.

If it is desired to supersede psychological definitions by physiological, it is evidently presupposed that psychological definitions are already in existence. The creation of these definitions must be the part of psychology; and if it can itself make no clear-cut definitions, assuredly physiology cannot ascertain for it what it should seek in the brain an explanation for. If what is to be superseded be vague and uncertain, then what supersedes it will likewise be vague and uncertain. And we cannot derive certainty from the fact that we have actually

discovered the brain-states which correspond to psychical manifestations observed in the act. The independence of psychology must be recognized in any event, since it prescribes — like a kind of symptomatology — the work of physiology. It is a long and difficult task to find adequate definitions in any experimental science; they only become possible when the science has actually reached completeness; they come at the end, not at the beginning of the investigation. Only too often have crude psychological definitions been considered trustworthy starting-points for the investigations of brain physiology. So Descartes, and in recent times Lotze, considered the idea of the 'soul' as so plain and self-evident that physiology and anatomy could calmly be called upon to search out 'the seat of the soul.' Recently Flechsig[16] has held the notion of 'association' to be so simple and clear as well as so independent, that he has been able to persuade himself that he has found a special place in the brain for the func-

tions indicated by this notion. Flechsig's reliance on the highly incomplete concept of association shows that psychological experiment never reveals absolutely simple psychical elements which are brought into combination afterwards by means of a special process. The association-process cannot be set up as the positive antithesis of those processes through which the single psychical elements (sensations and ideas) originate. Flechsig operates with a psychological abstraction, not with a true psychological definition. Against Flechsig's doctrine of special association-centres, anatomical objections have been raised from many directions, which I cannot pass upon; but the psychological inadequacy of his concept of association sufficiently shows how difficult an undertaking it is to replace psychological with physiological conceptions.[17] It seems to me that an excellent occasion for criticising Flechsig's theory is afforded by the following considerations. When there are psychical elements which

enter into no such association as may be expected under customary relations, this condition will prove on nearer investigation to have been caused by the fact that the respective elements, each for itself, are welded in other firmer associational relationships from which they cannot loosen themselves. In any case, in psychological inquiry, the task always is to find the antecedent associations which, later, on their own account, hinder 'natural' association. If we sever the conceptions 'element' and 'association' from one another, we foster thereby a false psychology as well as a false physiology. Long and patient investigation is still necessary for the creation of the definition of a concept like 'association'; and physiology must wait a long time if it would 'supplant' a psychological reality and no bare abstraction.

But even supposing psychological definitions were already complete and ready to hand, would not the greatest problems still remain unsolved? How *can* physio-

logical states have psychical symptoms? How can qualitative differences correspond to quantitative, and how can discontinuous phenomena be united with continuous processes? The fact is that if such questions are thought to be snuffed out by the reduction of psychology to physiology, they will only blaze up again hotter and brighter than before. In any event it remains an unsolved riddle how qualitative differences and discontinuity arise. Even if it could be demonstrated that two ideas, A and B, heretofore considered different, were identical, so that we could say A = B, we would not thereby have explained how A and B could appear different in the first place. To call this distinction 'subjective' doesn't help in the least; it will not thereby be blotted out of being. Indeed, the fact that Being also has a subjective side is just what makes psychology possible and necessary. If, with Münsterberg, we hold that these subjective phenomena can be neither described nor explained,[18] it is not easy to understand how

we get hold of anything at all to place in our 'causal equation.' It is of a piece with the man who sawed off the very limb on which he himself was sitting.

It is illogical to deny a causal relation between psychical phenomena, if a causal relation is assumed between the corresponding physiological states. If we recognize a standard of physiological law, we must also recognize a standard of psychological law. If the psychical phenomenon α corresponds to the brain-state A, and the psychical phenomenon β to the brain-state B, and if a causal relation occurs between A and B, then in psychological experience there must appear a causal relation between α and β in the sense of an inevitable series. As demonstrated above, it is, in fact, only this causal relation between α and β, that makes us seek a causal relation between A and B. In Avenarius's carrying out of a reduction of psychology (the doctrine of the 'dependent vital series') to physiology (the doctrine of the 'independent vital series') it is mani-

fest at every step that he infers the constitution of his independent vital series from that of the dependent series. Customarily, one constructs a physiological scheme chiefly to have a visual symbol of what takes place in the psychical processes. Neither physiology nor psychology has yet attained such completeness that we can dispense with such a schematic symbol.

Psychical phenomena, however, do not present such great discontinuity or such pure qualitative differences as is often believed. Careful observation repeatedly leads to the discovery that where there appeared to be a psychical void, there was in fact a psychical content, although attention or recollection did not lay hold of it, and although it was forgotten immediately after the experience. On the other hand, with respect to qualitative differences, a more careful examination reveals also more numerous and fine shadings than those at which we had hitherto halted, — and which we had tranquilly explained to be entirely disparate. The con-

tinuity of consciousness can thus be traced farther than is often assumed; and qualitative difference and discontinuity, if too strongly proclaimed as the essential trait of consciousness, can become a peril to science. The inner connection of the various contents of consciousness is likewise a fact, and functions like memory and comparison are no whit less significant as characteristics of consciousness than the phenomena which bear the stamp of discontinuity. The task of psychology is therefore to demonstrate as far as possible the connection and the combination of the single elements, so that the totality will be intelligible through the part, and the part through its relation to the totality. That this leads to an antinomy which makes the psychological problem ultimately insoluble, has already been made plain (p. 19). But there is work enough to do ere we arrive at this limit (whose absoluteness, moreover, cannot be proved). Leibniz has the merit of having doggedly championed the principle of continuity in the psychical

as well as in the physical realm, especially because he pointed out the little psychical elements, — vanishing in comparison with the clearly conscious states — which only through summation and combination yield tangible results to unpractised self-observation. A comparison of modern with ancient or mediæval poetry shows how vastly larger a number of mental differences self-observation has now recorded; but the discovery of this larger world can hardly be due to the fact that the differentiation of the psychical realm is greater now than formerly. The knowledge and the understanding of the immediate and involuntary in the life of the soul has wonderfully increased. The psychology of children and of primitive man is inclined to treat everything that goes on in the soul as clearly conscious, and as resting on reflection and intention. In modern psychology, the burden of proof — in practice as well as in theory — has shifted to the other side: now it rests on him who asserts that an act has been performed with reflec-

tion and express determination. The actual passage out of the unconscious into the conscious; and within the conscious, out of the involuntary into the voluntary; takes place continually; indeed, the more expert self-observation and criticism become, the more difficult it becomes to lay the finger on the exact point where the boundary lies.

Leibniz was inclined to reduce all psychical differences to differences in degree of clearness and obscurity.[19] This attempt was characteristic of the intellectualism of the century of the *Aufklärung*. But empirical psychology can represent a continuous connection in another way than by means of such a reduction, in spite of the qualitative differences which psychical processes exhibit in their various stages. In the different stages of consciousness there are blendings and combinations which embrace the simplest emotions as well as the highest states of feeling. Furthermore, there are shiftings of motive which bestow immediate worth on what at first had worth only as a means,

or *vice versa*. Finally, the conscious life of strong personalities, the highest and noblest objects of psychology, presents such a dependence of all mental impulses on a single purpose, a single leading thought, that we here find a causal connection not a whit less firm and inward than any that appears in the physical realm. Every single thought, every single mood, and every single motive in such a character is clearly determined by the totality to which it belongs and to whose upbuilding it contributes.

There remain cases enough where we cannot demonstrate psychical continuity. But the question is whether on that account we have the right to deny its existence. Herewith, turning aside from the point as to what continuous observation can ascertain, we are confronted with the important question whether psychical phenomena can arise from material causes, when once for all we conceive of matter as natural science has hitherto conceived of it. If the scientific idea of matter includes no provision for

the arising of psychical phenomena, we shall be fully warranted in advancing the notion of a *potential psychical energy*, in order to emphasize the fact that we will not at once surrender the principle of continuity because in practice we cannot apply it to a concrete case. On just such grounds, the notion of potential energy, despite the obscurity enshrouding it, has been introduced into physics. Everywhere the notion implies the recognition of limits, beyond which we nevertheless do not wish to renounce a connection traced thus far. The fact that psychical elements can reproduce themselves after an interval in which they were not in consciousness, compels the employment of such notions as 'disposition,' 'trace,' 'possibility,' and the like, which in fact express exactly what is meant by 'potential energy.' The fact that we are more inclined to use this notion in the physical than in the psychical realm,[20] by no means excludes the correctness and necessity of its use in the latter. In a purely descrip-

tive account, one can often be content to indicate the various psychical phenomena emerging at certain moments, without observing their mutual psychical connection. Psychical phenomena show themselves in such a case as separate flashes, in strong contrast to the continuous connection which the corresponding physiological phenomena exhibit. And since whatever emerges with the highest degree of continuity easily impresses us as more real than the discontinuous and flashlike, the physiological phenomena readily seem to us to be the very reality, the real phenomena, and the psychical phenomena seem to exist as an overflow, a chance addition, or, as they have been called, as epiphenomena. Such an 'epiphenomenalism' has hardly yet been advanced as a distinct theory; it is only an empirical confession that there is something enigmatical in the appearance of psychical phenomena in comparison with the closer continuity in the series of material phenomena. It really gives no solution, it

abolishes rather every psychological as well as physiological explanation if it pretends to be more than a description. Even as a description it easily overreaches itself, because it often comes to a halt before the discontinuous without investigating whether or not it could find still more transitions and conjunctive shadings than had already appeared. The notion of potential psychical energy — just because it is only the expression for an unsolved problem — turns into an ever-present exhortation to prosecute observation and analysis in order to discover as far as possible the reality in which the 'potentiality' ultimately consists.

3

If, on the psychological as well as on the physiological side, we emphasize the quest of continuity in the highest possible degree, then the hypothesis of identity becomes the real working hypothesis of both the psychical and the physiological problem.

Like every other hypothesis that means anything practical, this is only an expression for a method. In psychical and physiological phenomena we have two serial forms of states, which experience shows us to vary in certain reciprocal relations, without its being possible to deduce the existence of the one series from the existence of the other series. Scientifically considered, the task now is, to conceive each of the two series by itself as completely and continuously as possible and to show which definite members of the one series correspond to certain members of the other series. We can with right consider members of one series as *symptoms* of members of the other series. Now it is the psychical, now again the physiological states, which are most palpable to us, and of which we make our starting-point. The close interrelationship of the two series of states makes it impossible to trace them back to two different 'beings' or 'things'; it comes entirely natural to conceive them as different manifestations of

one and the same 'being.' Because two properties cannot be derived from one another, one has no right to conclude that they belong to two different things, particularly not if they vary in fixed reciprocal ratios. The consistency of sulphur (hard, liquid, etc.) and its color (yellow, brown, etc.) vary in a fixed reciprocal relation and yet they cannot be derived from one another, although one who knows both the series of variations can make inferences from the one to the other. With reference to sulphur, we know the general cause of both series, namely, heat, which here manifests itself in two different ways. With reference to the relation between the psychical and the physiological series, the corresponding knowledge is denied us. Our experience is here incompetent to solve the problem. This is closely connected with the fact that our knowledge of both the psychical and the physical is empirically limited. Therefore, the task now is, to work forward in both realms of experience so that one does not at

any point arbitrarily sever the hidden connecting thread.

Physiological continuity is both a consequence of the law of the conservation of energy (and indeed of the doctrine of inertia in its stricter interpretation) and an expression of the independence of physiology as a science. It supplies a fruitful and indispensable principle of research, since it continually strives after evidence of physiological causes and results of physiological states. As we saw above, we have in continuity a principle so essential that, if an experiment were to point in the opposite direction, the experimenter would rather assume an error in the experiment than a violation of the principle. The principle of continuity — and with it the hypothesis of identity — would be refuted, if it could be proved that the energy contained in a brain-state stood in no relation of equivalence to the preceding and succeeding states in the brain, in the organism, and in the physical environment.

It would be already dangerous for the hypothesis of identity if it could but be demonstrated that the psychical phenomena come *before* or follow *after* the physiological states. In an attempt to demonstrate this it would not be enough to show, as popular observation already shows, that the perception arises later than the corresponding sense impression or earlier than the physiological (motor, especially vaso-motor) manifestations, which somehow stand in combination with it. For, between the psychical states and the peripheral processes in the sense-organs and motor-organs, lie the central physiological processes which direct experiment cannot so easily touch, and even were such a direct experiment possible, it would not be decisive. For example, if the phenomena B follows after A, still A and B might conceivably be results of the same cause, which begat first the result A and then the result B. Special causes might bring it about that one vital phenomenon should change more rapidly than the other.

It would be a decisive proof against the hypothesis of identity if it could be proved that different psychical phenomena could correspond to one and the same physiological state. Some have thought, for example, that the significance of the brain for conscious life consists in the fact that it counteracts the tendency of organic life to become too habitual and automatic. The brain has a wonderful power of initiating new movements, which, as soon as they have been learned, become habits whose further execution is turned over to lower centres. Only by the assistance of the brain has thought freed itself from automatism and been able to press the organism into its service without being brought under the yoke of habit. Different thoughts, however, might call into requisition at different times the same 'motor scheme,' the same inhibition of an automatic tendency. Bergson has recently advanced this possibility as a remonstrance against 'strict parallelism.'[21] The remonstrance raises one question to

which only very slight attention has been paid in the extensive discussion over the psychophysical problem. Whether one assents to the special theories adduced by the French philosopher or not, this much appears to be clear,—that the closer one comes to the problem in real life, the more exceedingly difficult it becomes to find the members in the two series of phenomena which can be pointed out as 'corresponding.' Where terms qualitatively differ, one can only indirectly determine which terms are correspondent. If we knew how warmth works on the color and how on the form of a substance, then we could determine which color- and form-changes mutually 'correspond.' But unfortunately no such knowledge stands at our disposal for the clearing up of the psychophysical problem: we are shut up to purely empirical conclusions, and these are here harder to draw than Bergson appears to think. Even if one lays adequate emphasis on the continuity element both in the psychological and in

the physiological realm, yet it will prove difficult to break the two series up into members that will stand out with such individuality that a true comparison can be instituted. Whichever hypothesis we build on, we must be prepared to find that the very members of the two series which are considered to correspond will exhibit differences which cannot be derived from the one or the other member *by itself alone*. It might, therefore, be altogether possible that 'different' psychical phenomena would correspond to the 'same' physiological state (or *vice versa*), as sometimes one language has only a single word where another has two words. The determining factor must remain the actual fact of connection, and this will certainly, both in the psychological and in the physiological realm, be so decisive, that one must speak of phenomena or states as 'the same' with only a degree of approximation. Still, 'parallelism' will not be taken aback by that objection, if we make a sufficiently strong claim that the states shall really be 'alike.'

It is, essentially, as a working hypothesis, not as a positive solution, that the hypothesis of identity (for which 'parallelism' and similar expressions are inadequate and misleading designations) gets its significance. For my part, in any case, I have always championed it as 'an empirical formula' which may so lead us in our investigations that neither the rights of physiology nor the rights of psychology will be violated by a too early cessation of our investigation in either of the two realms. Physiology may be tempted to give up the search prematurely if it expects to run into the 'soul' at some point as the cause of the change of the state of the brain;[22] and psychology is subject to the same temptation if it expects at some other point to confront a psychical phenomenon which has its causes in a 'nerve process' or in 'nerve energy.'

4

Both sides, the psychological equally with the physiological, will still find their

own interest to lie in getting as near as possible to one another, in endeavoring to get back, each to the fundamental fact of Being which its peculiar phase of experience presents.

On the psychological side, the idea of will, taken in the broadest sense as the idea of psychical activity, will appear as the fundamental idea. This statement may seem to be undermined by the fact that of late many psychological writers even attempt to cast the idea of will out of psychology, not because they deny what in popular speech is called the will, but because they think that this idea indicates a point of view by no means so fundamental as cognition and feeling, since the so-called phenomena of will can be traced back to special combinations of elements of knowing and feeling. In support of this contention, we may cite the fact that the will as such, our activity as the activity of a conscious being, cannot be an object of immediate self-observation like ideas and feelings.[23] We observe the

motives and the result of the will, but not the will itself, just as in the sphere of material nature we observe the conditions and phenomena of energy, but not energy itself. Hume demonstrated this truth with reference to all causality, psychical as well as material. The idea of will, like the idea of energy, is created by means of a construction, — a construction which we are, however, compelled to undertake. If one defines a psychical element, not as something that must be susceptible of becoming the object of direct self-observation, but so that it indicates an essential and irreducible unit of the conscious life, then the will can quite conceivably be a psychical element and the concept of the will a fundamental psychical concept. The reason why we cannot make the will the object of self-observation like sensations, ideas, and feelings may lie in the fact that the will as a persistent presupposition envelops all the changing states and forms of the conscious life. Consciousness exists only on account

of the uninterrupted work of collecting the single elements into a totality. Such a work of combination and concentration is evident in the simplest sensation as much as in every ideation, every feeling, every impulse, every determination. At every point an activity manifests itself, which is just as original a phase of conscious life as the elements (phases or attributes) which observation and analysis directly light upon. The real state of affairs is not that we first had sensations, ideas, and feelings, and that then through combination something came into being that we might call the will. Without an original combination, without a primary synthetic process, even the elements which determine the will in the narrower sense could not arise. In the special manifestations of will (reflex action, impulse, desire, purpose, determination) the primary power of concentration exhibits itself in a special way under the influence of certain determinate elements of knowing and feeling.[24] Consequently, there is incessant reciprocal

action taking place between the activity-elements, the volitional elements proper, and the intellectual and emotional elements. Here, again, we meet the antinomy, mentioned above in Section 1, which prevails in all conscious life, and indeed, on the whole, in all life. But the chief point is that we can already form, purely psychologically, a concept of energy, because, wherever a psychical phenomenon appears, a psychical operation must have been performed, since such a phenomenon, so far as we can fathom it, always presupposes a synthesis. The psychical operation in which the synthesis consists is the greater, the more the single elements differ qualitatively, and the farther they are separated in time.

We might now be decoyed into immediately identifying this psychical energy with the energy working in the nerve-tissue. But since not all neural processes are connected with conscious phenomena, we must distinguish between conscious and uncon-

scious nerve-energy, and consequently the problem presents itself anew. Moreover, we know nothing in detail about this so-called nerve-energy or about its relation to other organic and inorganic forms of energy. If we consider, with Ostwald[25] and others, the riddle solved by setting up the concept of 'nerve-energy,' we only introduce a *qualitas occulta* and soothe ourselves with that. The natural science concept of energy, wherever one meets with it, is always abstracted from phenomena with geometrical properties. Natural science knows energy only as the expression of the relation between spatial phenomena. The riddle would be solved only if we could form a concept of energy from which both the psychological and the natural science conceptions could be derived as special forms; but we still lack the means of constructing such a conception. At all events, any attempt in this direction would carry us beyond the domain of the psychological problem.

CHAPTER II

THE PROBLEM OF KNOWLEDGE

I

NOT only psychological understanding but, in general, all understanding is conditioned by the relation between continuity and discontinuity. The latter occasions the fulness and multiplicity of the content of the understanding, the former its connection and arrangement. Our understanding of things appears under different leading forms which correspond to the sciences.

I understand what something is if I recall it; thus I understand or know who is approaching, if I recall the person approaching. Recollection rests on the connection existing between the new and the old experiences. In the act of recollection, all intervening

experiences are forced to one side and the new phenomenon is directly or indirectly, involuntarily or after some reflection,[26] identified with an earlier presented phenomenon. Contrast with the new is also at work here; the recognized quality is thrown into the stronger relief the more unrecognized its present surroundings are. Recollection makes *description* and *classification* possible, yet the idea of difference is actually at work in both operations. In all description and classification a certain type stands fast, at least provisionally, and the new phenomena are referred back to it, either as fully like (covering each other), or as qualitatively similar, or as analogous (similar in their relations). The positive concepts which we form embody such types. Where, for some reason, we can summon no recollection of similar phenomena and, consequently can set up no type, we collect the phenomena for the time being under a negative concept; that is, we give them the general mark of being different

from the types previously defined. In the history of classification, negative concepts have the merit of having made possible the collection of the hitherto undefined into a group different from the defined group, leaving it to later investigation to find within it positive definitions.[27]

In the history of philosophy, Plato's doctrine of ideas stands as the characteristic expression of the importance of descriptive and concept-forming investigation. Even the possibility of recollection in the midst of the confused multiplicity of phenomena filled Plato with emotion. To him, the highest power of the mind was that by which the different types underlying recollection were arranged according to their mutual likenesses and differences, so that a Thought-world reared itself in which one could mount up and down upon a continuously serial ladder.

When concepts have been formed in different connections, they can be united into judgments, and when different judgments

have common concepts which can be substituted for one another, conclusions can be drawn. By way of *inference*, concepts and judgments can be formed without having to go back to the experiences to which the descriptive and classifying sciences are bound at every point. There prevails here a continuity of a higher kind, since thoughts and thought-series of extremely different origin can be brought into combination. While recollection rests only on identity, judgment rests on rationality; here the relation between ground and consequence rules, and makes possible a new kind of understanding. I understand that A=C, if I know that A=B and B=C. This kind of understanding is acquired by means of the formal sciences. It is peculiar to these sciences that it makes no difference whence the first judgments and conclusions sprang, if only they have such a constitution that series of conclusions can be built on them. So the descriptive sciences do not concern themselves about the origin

of phenomena, so long as these allow themselves to be arranged according to relations of likeness and difference.

A third kind of understanding is to be found, where one neither advances merely from phenomena to concepts, nor merely builds new conceptual combinations by conclusions from given conceptual combinations; but where, on the contrary, one deduces new phenomena from previously given phenomena. The new phenomena are understood, when we think their relation to earlier phenomena to be *analogous to that between the ground and the consequence of an inference.* This kind of understanding characterizes natural science as it has developed especially since the Renaissance. In it the *concept of causality* is supreme. We combine experiences by it according to their inevitable and law-determined succession.

It is this third kind of understanding that has especially concerned the modern theory of knowledge, since Hume and Kant

pointed out the distinction between a logical inference and a real causal explanation. The possibility of creating and making use of the concept of causality has in modern times aroused an astonishment like that aroused in Plato's time by the creation of general concepts. It is, however, not only the intellectual necessity of finding a connection between experiences that has led to giving such prominence to the concept of causality, but also the necessity of distinguishing sharply between subjective ideas and objective reality. And this rests on the fact that the criterion of reality in doubtful cases is always, in the last analysis, the firm, inseparable *connection* of phenomena.[28] The world of dreams and of thought is greater than that of reality ("narrow is the world and the mind is wide"), and man is under the constant and pressing necessity of so determining and combining his thoughts that they may stand as manifestations of a reality, since only thus can he expect to find the means of realizing his purposes.

The causal concept appears under two aspects: under a provisional, elementary form, with which we are often compelled to be content; and under an ideal aspect which all research and all theories strive after. *The elementary causal concept* presents only an unconditional succession: if the phenomenon A appears, then B inevitably follows, and B only appears when A has preceded it. It is not asserted that the causal relation holds between A and B themselves. It is possible that they are both the successively emerging consequences of a previous cause. *The ideal causal concept* goes a step farther and sees in the phenomenon, which we call the consequence, the *continuation* of that phenomenon which we call the cause, or its equivalent in a new form. The ideal causal concept consequently passes over into the concept of *development* or *evolution;* it is, therefore, no wonder that the latter has played a rôle in recent science only second to the concept of causality.

2

All three kinds of understanding rest upon certain axioms or principles. Unconscious thought — as it is exercised by the practical intelligence in the special sciences, in philosophical speculation, and in religious theory — does not feel impelled to undertake the investigation of these axioms, but the theory of knowledge overhauls them for a critical examination. The theory of knowledge arises when we ask, in what does the *validity* or *truth* of our understanding consist, and how far does it extend? Here again arises the problem of the relation between continuity and discontinuity. The problem arose, for Plato, through the irrational relation between idea and phenomenon; for moderns, through the irrational relation between formal science and real or natural science, science of fact. Can the concept ever be an adequate expression for the manifoldness of phenomena, or the law for their changing combinations?

For Plato, the solution lay in the theory that the ideas must have come down to man from a higher existence, and here, under the influence of the incomplete imitation presented by the perceptual world, must reveal themselves to thought in their completeness. In modern times, the idea of the conformity of nature to law has often been considered as an *a priori* truth, as an original intuition, which at most only had to thank experience for being the occasion of calling it forth. The incommensurability between the principles (the logical principles and the principle of causality) on the one hand, and experience on the other, has begotten this speculative theory of knowledge. This incommensurability has given birth to what one might call the *arbitrary* theory, because it so strongly emphasizes the arbitrariness of our original formulation of the principles, and not less strongly emphasizes the fact that in their pure form they can obtain no confirmation through experience, — that they can never become results, but only

remain mere postulates. Hobbes, the most pronounced champion of this view, says there can be no science of the principles of all science; that these principles are made by constructive art (principia sunt artis sive constructionis, non autem scientiae et demonstrationis), and we ourselves create their truth (rationis prima principia vera esse facimus nosmet ipsi). According to Fichte the primary and unconditioned basis of all human cognition is obtained by means of a free construction; our science is based not upon a *fact* but upon an *act;* that is, upon the determination of the thinking consciousness always to keep in agreement with itself: upon the holding to the principle of identity. S. Kierkegaard makes a similar abrupt start in his establishment of the principles; and Kroman derives the principle of identity from the law of self-preservation, which seeks to hold the unity of consciousness intact; "by no means has it (the principle of identity) proceeded from experience."[29]

Hence the speculative and the arbitrary theories both alike acknowledge that there must be definite empirical occasions to call forth the intuitions or the postulates. Empiricism (which passes over into Evolutionism if it takes account of the experiences not only of the individual, but also of the species), when it appears in its absolute form, lays chief emphasis upon these 'occasions' and treats them as complete causes. It has been set forth most lucidly by J. S. Mill and Herbert Spencer. It seeks to show how, under the long-continued influence of environment, general principles could gradually arise in consciousness; and it energetically asserts that no principle can possess validity beyond the empirical verifications which it may have won. Therefore, the principles have value only as results.

What empiricism cannot explain is the fact that the principles themselves *beget* experiences for us through the questions to which they incite. More auspicious here is a fourth theory, which has recently been developed

by Ernst Mach and Richard Avenarius, and which may be termed the *economic* theory. It concedes the rights both of passive experience and of the active development of thought, since it considers the principles as 'conceptual reactions' intended to win a view and comprehension of things by the shortest possible route. The reason why the principle of continuity plays such a leading rôle is said to lie in the fact that it is so economical a principle. The doubt is only as to the extent of its application. A man creates whatever concepts and principles he may need in order to make himself master of phenomena. Every practical and intellectual necessity is satisfied, if our thoughts are able completely to remind us of the facts of sense. This reminding is the goal and purpose of physics; and atoms, forces, and laws are only the means to facilitate it. They are of value only in so far as they help us.[30] Maxwell and Hertz express themselves in similar fashion.[31]

The four theories, which conceive the

principles of knowledge respectively as intuitions, as postulates, as generalizations, and as economic tools of thought, collectively presuppose the *analytic or regressive theory of knowledge* especially developed by Kant. For, *what* the object of the intuition or of the postulate or of the generalization may be, and *what* corresponds to the economic demand of the investigation, can only be discovered by the fact that one makes *deductions backward from the data presented by experience, and finds the presuppositions on which an understanding of them is based.* Such an analysis must form the basis of every theory of knowledge. But one will never be able to feel entirely sure that the analysis is complete. The history of science shows that this is a task which must constantly be undertaken afresh. At one time more, at another time fewer, principles than theretofore are thought to be necessary. A guaranty that absolutely the last presupposition has been reached can never be won. What the eco-

nomic theory (on which I will particularly dwell) especially emphasizes is, first, that no more principles need to be posited than the given case in strict necessity demands (this is the thought of Avenarius's *Kritik der reinen Erfahrung*); secondly, that different principles may be necessary at different times or in different scientific situations, so that a principle that has for a long time furthered investigation, may later come to be recognized as inadmissible, without its historical significance being thereby ignored. The economic theory also emphasizes the law of parsimony and the character of the principles as determined by purpose and utility. It owes its being to two classes of motives: first, to the desire to reduce to a minimum the principles that cannot be proved, — that is, from an anti-dogmatic or anti-metaphysical motive; and secondly, it arises from experiences in the history of science which show how principles and hypotheses may for a certain period be valid and fruitful, but later must be displaced by

others. The discussions carried on of late as to the validity of the mechanical conception of nature have directed attention to this second class of motives.

There are meanwhile two sides of the case which the special form assumed by the analytic theory of knowledge, in its appearance as the economic theory, inadequately emphasizes; and these become of special significance when the theory of knowledge is not considered as isolated, but is connected with other philosophical problems.

In the first place, those forms through which our intellectual demands are satisfied must be in keeping with the general nature of consciousness. *What* we understand, and *that* we understand anything, depends not only on the constitution of phenomena, but also on our intellectual organization, just as the colors which we see depend as much on the constitution of our visual organs as on the external objects. There is a certain type for all principles and hypotheses, which finally refers back to

the innermost nature of consciousness, and here, once more, one comes back to the necessity of unity and continuity. What and how many fundamental concepts (categories) and presuppositions should be postulated, — this is the problem that must ever anew be attacked in the battle of knowledge, if the standard is to be carried forward. Kant was suffering from an illusion if he supposed that one could once for all specify what would be necessary in this or that relation; but the old Master was not mistaken in declaring that the *demand for unity and continuity* lies at the bottom of all the forms through which we win or expect to win understanding. He himself has shown that all his categories can be traced back to the concept of continuity; and amid all the changes in the realm of principles this concept will undoubtedly be brought into play again and again. Logical principles, the principle of causality, and the fundamental doctrines of natural science, all hinge on this concept, which stands in

such close connection with the nature of consciousness. A purely psychological epistemology will never be able to afford satisfaction; because the fact that the demand for union and continuity — however essential it may be for consciousness — is satisfied by certain principles by no means implies that these are objectively valid. That demand may attain peace and satisfaction in many ways and under many forms, — as the history of mythology and of speculation sufficiently demonstrates, — ways and forms which as a rule entirely fail to satisfy the demands of economy, either with respect to parsimony or with respect to practicality. Schiller's words aptly express it: "Wide is the mind and narrow is the world." In the whole kingdom of thoughts of which the human mind disposes, there is only a strait and compact series that are of any use when it comes to valid *understanding*. The only necessary requirement is, that the assumptions which the understanding of the datum calls for shall be psychologically pos-

sible; that they shall be in harmony with the general laws of conscious life, and only special and detailed developments of what lies in those laws. Out of the thoughts involuntarily surging forth there must be a selection made, but this does not release us from conformity to general psychological laws.

Thus it comes to pass that a new disposition of a special kind is formed, — that an *intellectual habit* arises, which puts questions and criticises answers in a stricter, more definite way than is required by the involuntary course of thought. Every comprehensive principle — psychologically considered — is essentially the expression of such a habit, which may be more or less deeply imbedded in the nature of consciousness, *i.e.* which sometimes has the nature of an instinct, but sometimes seems more like the influence of custom. The purely logical principles approach most closely to the instinctive. The necessity of agreement with one's self, of the sequence of the train of

ideas, is not to be explained by parsimony and fitness alone. When strict induction from previous experiences leads to contradictory results, we prefer to assume that the experiences are incomplete rather than that Being contradicts itself.

What is in the highest degree true of the pure logical principles, is also true of the more special ones. Thus the principle of causality is an expression of our inclination, on the occurrence of one event, to look round for other events, in which the conditions for the occurrence of the first may be found. Here also appears our craving to win for the content of consciousness union and connection. The more special and definite the satisfaction of this craving is, the more powerfully the principle of economy operates in its two forms: as parsimony, which follows the short road to the goal; and as effectiveness, which takes the road that really leads to understanding. As examples, we have Kepler's and Newton's demand for a *vera causa*,

we have the law of inertia and the law of energy, etc. What appears as an hypothesis from the purely empirical view, becomes, epistemologically considered, a principle, a regulative thought, under whose leadership consciousness may satisfy in the empirical world its demand for continuity and union.

In the second place, principles and fundamental hypotheses need not be conceived as altogether fortuitous or arbitrary; even though they should be ultimately but working hypotheses in the service of our intellectual economy, rather than literal parts of the Being that we wish by their aid to understand. The idea of a working hypothesis points in two directions: on the one hand, as already demonstrated, back to the nature of the thinking consciousness, since our consciousness can perform no function, however economical, which is entirely foreign to its own nature; on the other, to the reality to which the phenomena to be understood belong. A tool must be adapted both to

the hand that is to use it and to the object to be worked on. The thing, therefore, must in itself present aspects which correspond to the formal tendencies of our knowledge, however much these latter may also be conditioned by the circumstances under which, or perhaps by means of which, the knowledge works. This is the case with all valid knowledge, from its most elementary to its highest forms. So it holds with sensations, in spite of their 'subjectivity,' and it holds with the highest principles of abstract unified thought. Kant remarked, on the inclination to presuppose a unity behind the diversities of natural phenomena:[32] "One may perhaps believe that this is merely an economical tool of Reason in order to save one's self as much trouble as possible, — an hypothetical attempt which, if successful, would borrow an air of probability from just this unity. But such a selfish view can very readily be distinguished from the fact that every one believes in, that this unity of Reason is congruent with Nature

herself, and that Reason here does not beg but commands, although unable to determine the limits of the unity which she assumes." So I would here add: wherever reason "commands" (or asks, expects, anticipates, postulates), she is, like all commanders, under the necessity of shaping her commands according to the capacity of the obeyer that she may have to deal with.

This last consideration leads to the question of the connection between the problem of knowledge on the one hand, and the problem of Being on the other. It is especially necessary to bring this into prominence because the analytic theory of knowledge — like the economic and, in its way, the arbitrary also — tends to set up a new concept of truth in place of our ordinary, naïve concept. The significance of principles is, that they may lead us to reach a rational understanding in our work. Their truth consists in their *valid application;* and this consists in their *working value.* That a principle is true, signifies that one can work

with it, and this means, if the remark refer to the principles of knowledge, that one can with their help advance to understanding, — firmly ordering and unifying the phenomena. The concept of truth is a *dynamic* concept, since it expresses in a definite fashion the application of mental energy; and it is a *symbolical* concept, since it indicates, not outward likeness or qualitative similarity to an absolute object, but relative similarity (analogy) between the things in being and in human thought. The old naïve concept of truth, according to which a cognition was true if it absolutely reproduced or mirrored 'reality,' is untenable, and it became so from the very moment when the subjectivity of sense-qualities began to be asserted. The subjectivity of sense-qualities, however, does not mean that they are invalid and unfit to guide us in the world. They stand constantly as tokens, signals, symbols, whose serial order we can point to as the expression of an objective series of events, although we cannot

demonstrate that they are *copies* of the objective series. The same relation obtains with logical principles and other fundamental presuppositions of our knowledge. The critical philosophy led to the result — a simple consequence of its analytic methods — that the truth of fundamental principles can only mean that they make intelligible experience possible; that they have, in fact, been found by analysis to be the necessary presuppositions of such experience. A comparison of our thoughts with an absolute world of things is impossible; we can only compare thoughts and experiences. Kant himself did not see this consequence as clearly as some of his disciples (Maimon and Fries)[33]; the master himself was still hemmed in by dogmatism, as can be seen in his doctrine of the 'thing-in-itself' as an absolute entity outside of every subject. But when he designates the law of causality as an 'analogy of experience,' and thereby understands that temporal events stand related in a way

analogous to ground and consequence in our thought, then he is on the point of making it into a working hypothesis. In modern times, as we shall soon see, there is more inclination on the *side of natural science* to recognize the dynamic and symbolic concept of truth than was the case so long as the mechanical conception of nature bore a certain dogmatic character. This new conception of truth, which works itself out in the realm of science, exhibits resemblances to the religious consciousness — as we shall see under the fourth main problem — in that it always sets itself in opposition to dogmas. In the religious realm, also, men are tending more and more to ask for its practicality and working value. *The static notion of truth*[34] *must everywhere give way to the dynamic.*

Even after fruitful principles or working hypotheses have been attained, will Being be completely rendered by them? or will there always remain an irrational relation *between the principles which may compose*

our consciousness and the Being itself from which our experiences are derived? We shall find that under three different forms there is always an irrational remainder, viz. in the relation of quality to quantity, in the significance which the time-relation has for the causal concept, and in the relation between subject and object. Let us now consider each of these three points by itself.

3

In the attempt to reduce all given differences to identity and continuity, the especially characteristic thing was the effort to trace back differences of kind to differences of degree. In the science of material nature, this manifests itself as the attempt to explain all changes as motion in space. Motion from one place to another is the simplest change: it would therefore indicate a great advance toward clearness, if it could be shown that this is a kind of change which under different forms goes on in Nature wherever immediate experience

shows us qualitative changes. Long ago Aristotle taught that spatial motion lay at the bottom of all other changes, of all becoming and disappearing. He, however, held it impossible — as the atomists would have it — to derive all events in material nature from motions. Only after the uprising of modern science does this idea make its appearance in earnest. Galileo stands as the great founder of what we are accustomed to call (in the narrow sense) the *mechanical view of nature.* Besides the simplicity hereby attained — and Galileo was firmly convinced that nature strikes out the simplest path — the conclusion was also reached that we could operate with determinate quantities. Hence Galileo said: measure everything that is measurable and make measurable what is not! By this reduction, on the one hand, unity becomes possible, for qualitative differences can only be appreciated, not measured; and on the other hand, exact verification becomes possible.[35]

The principles which serve as the basis of

the mechanical conception of nature were regarded by its weightiest champions as absolute truths, as fundamental laws of Being. In so far as they nevertheless believed that these principles needed a basis, they drew them directly out of the being and will of God. Herein were Cartesians and Newtonians at one; and the materialists parted with them only because they held the theological basis to be superfluous and impossible. By a series of magnificent discoveries and explanations this general view of nature has demonstrated its fertility. For us, the question is, Can it be considered a finality from the epistemological point of view?

Now, even if we should assume that everything in material Nature can be explained by the principles of the mechanical philosophy (and this, as we shall soon see, has recently been doubted in scientific circles), it is in the first place clear that qualities are not driven out of the world because they are 'reduced' to quantities, or because they

are attributed to the sensationally perceiving subject. They remain as immediate facts to be empirically recognized. The properties of a chemical product cannot be derived from the properties of its elements; and if one kind of psychical energy conserves its equivalent in another kind of psychical energy, yet the equivalent has new properties which cannot be derived from the properties of the first form of energy. But one cannot make the sensationally perceiving subject create these qualities out of nothing; in any case, we should then raise insoluble psychological difficulties, as bad as any of the physical and chemical difficulties which we were trying to get rid of.

In the second place, extension and motion are, in the last analysis, themselves qualities; actual properties which in themselves might call for an explanation just as much as the so-called special sense-qualities. Since Berkeley's and Leibniz's time this has often been asserted on the philosophic side. There are no grounds to suppose that their

quantitative properties express the innermost essence of things. The reason why science seeks these out so fondly and lingers by them is really only because with their help one can give exact descriptions of material phenomena, and from them can draw definite conclusions. This doctrine has recently been strongly championed by investigators like Maxwell and Hertz,[36] by the latter as an explicit addition to the above-mentioned economic theory of knowledge. "The advance of the exact sciences," says Maxwell, "rests on the discovery and development of appropriate and exact ideas, by means of which we can form a mental representation of the facts which shall be sufficiently comprehensive to stand for every individual case, but at the same time sufficiently exact to warrant the conclusions which by means of mathematical calculations we draw from them." And according to Hertz ('Principles of Mechanics,' Introduction), in order to be able to derive the future from the past, we create *images or*

symbols of such a kind that the effects deducible from the images by thought shall also be images of the effects that follow in the course of Nature from the imaged objects. The dynamic and symbolic notion of truth is here expressly put in the place of the naïf dogmatic concept to which the mechanical conception of nature formerly swore fealty. The problem reduces itself to finding a group of symbols which can be employed with entire *consistency*, and from which conclusions can be drawn that will be confirmed by new experiences which can themselves be again expressed by the same group of symbols. But by this method we never get rid of the possibility that another set of symbols might have expressed the actual experiences as well or better, and furnished equally verifiable deductions. It can never be proved of any set of symbols that it is the only right and necessary and possible set.

The epistemological reflections to which recent investigators have thus been led have

arisen from the difficulty either of subsuming electrical phenomena under the mechanical conception of nature, or of deriving the principles of the latter from the laws of electrical phenomena. The latter possibility has been defended recently by Hertz, the earlier one by Boltzmann.[37] Of the greatest interest, therefore, to epistemology is Maxwell's criticism of the ordinary notion of matter, according to which matter is considered to be an extended mass. According to Maxwell, the weakness of this concept is that it tends to think of matter as inert. But it is motion which makes rest intelligible, not the reverse. The doctrine of motion must therefore precede the doctrine of equilibrium; dynamics must precede statics. From motion we attain the notion of force or energy, by means of which equilibrium becomes intelligible. But if we understand by matter the constant, the unchanged amid all changes, this can only be the *law-element* in motion, and thus the essence of 'matter' will consist in motion.

Further, it is, according to Maxwell, a prejudice to regard matter as extended and molecules as hard — for then we must ask what holds the parts of the molecules together, and come to molecules of the second degree. But we must constantly operate with geometrical as well as with dynamic concepts, whether we consider the last elements as really extended or not. It is only as a passive property that extension is attacked by Maxwell; thus if I draw a line on the table, the motion is the essential thing in the line.[38] Here there comes to the surface an epistemological point of view of extreme importance: static conditions always contain problems which can only be solved by substituting motion for rest. Potential energy is understood only through actual energy, capacities and tendencies only through their results. This law holds everywhere, in the psychical as well as in the physical sphere. There is a half-mystical, half-materialistic inclination to find perfection in contemplating — or gazing at — some-

thing unchanging.[39] Maxwell has made an important contribution toward eradicating this inclination. But the great question is, whether the idea of the continuity of motion or activity can be carried into all spheres. Even if the dynamic asserts its epistemological priority over the static, the static cannot be got rid of as a fact; it always springs up again before us with its problems for thought, and Maxwell himself recognized this in maintaining that geometrical as well as dynamic concepts are indispensable to the explanation of nature. In contrast to the dynamic, the geometric denotes simultaneity. In the realm of material nature, simultaneity appears in the form of space[40]; in the psychical realm, the relation of simultaneity does not take on this geometric form, but appears as a 'static' element, which sets new tasks for the inquirer after he has by dint of hard work found the laws of psychical change. After the continuity of developmental processes has been demonstrated, it must be proved that there is

continuity between the processes and the static conditions. Here again we run upon the standing problem; this would present itself, even if qualities had found complete explanation by means of their representation by quantities; or even if the physical axioms, with which science works, were not merely the most complete and appropriate set of symbols which have yet been formulated and employed, but were something more. The possibility of an irrational relation between Being and our knowledge can therefore not be ruled out of court.

4

The investigation of the relation between the *elementary, or empirical, and the ideal concept of causality* will lead to a similar result. In its elementary form, the notion of causation means, as we saw, only such a relation between two effects that, after one has appeared, the other also inevitably appears. But from this idea of inevitable sequence, investigation proceeds by observa-

tion, tests, and hypotheses to demonstrate as far as possible such a continuity in the series of effects that the differences between the members of the series are diminished, until finally even the difference in *time* is reduced to a minimum. From an external, although inevitable sequence, thought thus works down through continuity to complete identity of cause and effect. Although the time-relation plays an essential rôle in the elementary law of causation, it is almost entirely eliminated in the ideal concept of causality. If this process could be applied throughout, we should reach the paradoxical result that the complete explanation of causality involves the very abolition of the causal concept: for the causal relation is only differentiated from the purely logical relation of identity between cause and effect by the temporal difference between the terms.

The philosophy of the seventeenth century (Spinoza and Leibniz) made no distinction between cause (causa) and reason (ratio); the causal relation between two phenomena

was to them the same as the relation between the premises and conclusion of a syllogism, only a relation of identity. It appeared to them self-evident that in the effect no more could be contained than in the cause; that the time-relation between the members was a matter of indifference, and that time was anyhow only at home in the dim sphere of ideas and imagination. In Hume's handling of the problem of causality, this is also involved, since he declared that there was nothing to warrant the inference from past to future. According to Hume, the experiences of the past could only show that a thing once, at a single moment, possessed a certain potentiality, but not that it always possesses or will possess it.[41] Kant, to be sure, believed a rational proof could be given for the validity of the doctrine of causality; but he said that the causal relation and the relation between reason and consequence were only analogous, not identical, the causal relation signifying to him that events follow one

another analogously to the way in which the conclusion springs from the premises. The causal relation would thus contain a rule by which we could attain unity in our experiences.[42]

In recent times, the attempt has been made from two different bases to eliminate the time-relation; and consequently, to cast overboard not only the elementary causal concept, but ultimately the whole causal concept.

From the 'speculative' quarter it has been asserted that the time-relation always indicates an imperfection, an incomplete stage of development. So long as the time-relation determines our conception of being, our conception is on that very account incomplete, and the reality of the time-relation is irreconcilable with the idea of complete knowledge, of absolute truth. Our knowledge always works away from the time-relation; the more clearly we understand anything, the less significance does the time distinction have, — the more does knowl-

edge of mere fact pass over into formal knowledge, that of causes into that of reasons. What at first we called cause and effect will with the advance of knowledge appear as members of a totality, as members which stand in a fixed relation to one another, in a rational relation to which temporal sequence is unessential. The fact that we became aware first of the one and then of the other member, has no significance; in our recognition of the law the whole past appears to us as a unity. Not the time-relation, but the unity behind the time-relation binds what we call the cause to what we call the effect. Moreover there exists no time interval between the end of the event, which we call cause, and the beginning of the event, which we call effect. The English philosophers Francis Bradley and Bernard Bosanquet[43] have given currency to this view, which is intimately connected with a speculative interest in the idea of totality, and in absolute conclusions.

From an entirely different basis — which

may be designated that of 'pure experience,' and of which Richard Avenarius and Ernst Mach are the chief exponents — reasoning has worked in a similar direction, but from other motives. The attempt here is to cut away from the immediate datum all those associated ideas and auxiliary notions with which we involuntarily or methodically supplement our experience. The advance of knowledge consists in a reduction of differences (to a 'heterotic minimum') and in an approximation to a pure description of a continuous process. During this advance, the content of knowledge becomes constantly more confined to descriptive statements, as far as possible with analytical transitions, and the distinctions are reduced from qualitative to quantitative, as far as possible with the constant proof of equivalence. It is no longer the function of strict science to *explain;* whoever wishes 'explanations' is referred to mythology and metaphysics; it is the aim of science to give an exact, methodical *description* of all

relations and transitions. What specially concerns the causal relation, so this view asserts, is, first, that every employment of the concept of cause and effect cuts out two elements arbitrarily from the context in which they stand, and places them in antithesis; secondly, that the time-relation can readily be reversed as soon as one has demonstrated an equivalence or as soon as one ignores the direction in which the change takes place.[44]

The epistemological views which, by these methods, would from various motives seek to eliminate the elementary causal concept and combat the chief significance of the time-relation, can be characterized by saying that they set up an ideal knowledge instead of the real knowledge which we can at any given time attain. Every definite investigation must begin at a definite point, which lies where the problem itself crops out. The problem crops out when two of the members in a series of events draw attention to themselves, and arouse supposi-

tions as to their inner connection, or when a single member appears alone or suddenly, and thereby gives rise to the necessity of finding intermediates by which it can be brought into connection with all the rest of the series. The point of departure seized upon is in so far fortuitous and arbitrary; but in the nature of the case it can be nothing else. Our knowledge develops historically, because the attention of men is only aroused under certain definite conditions. If attention were at all times directed indiscriminately with equal strength to all the members of the series of events, no knowledge at all would be possible. Naturally, it is of importance that one should be conscious of the fortuitous or subjective nature of the point of departure and of the bit of experience cut out, but with the advance of the process of knowledge, one gets beyond this, because the fragmentary experience is worked, by understanding, into a great continuous whole.

This historical character of our knowledge is also evident when we recall how we always stand between the experiences of the past and the possibilities of the future. *At every instant* we must distinguish between the present and the expected datum; that is the cause, this the effect, and the expectation can never be more than an hypothesis. The single instant, in which on the one side stands a 'no more,' on the other side a 'not yet,' presents the problem in its whole intensity, an intensity which only the numbing power of custom can lessen. The puzzle will not be wanting with new problems — and so long as knowledge strides forward, it will seek and find new problems.[45] The full connection between events always appears afterward, and until it appears, the assumption of it stands as an hypothesis. Concepts like force, energy, cause, or possibility (which with different shades of meaning express one and the same relation; namely, the dependence of later conditions on the preceding) will therefore never cease

to be needed; this dependence is differentiated from the relation of purely logical and mathematical dependence by the fact that it is at once a temporal *and* a rational relation, because the resulting condition comes *after* as well as *out of* the preceding condition. Even if continuity should have been demonstrated by means of never so many intermediates and degrees of transition, this time-relation would nevertheless remain valid for every little step between two of the graded members.

No change would follow here even if equivalence had been proved between the separated states. Hume's problem has by no means been solved, as has sometimes been said, by the discovery of the conservation of energy. An equivalential relation does not exclude a qualitative difference, but directly presupposes it: for example, I have no reason to set up the equation A = B, unless A and B appeared different before I found by closer examination that they could be substituted for one another.

If such an equivalence has been found, it will make no difference whether we pass from A to B or from B to A; but when we found it, we began with A or B and proceeded by way of investigation to the other term.

In a judgment, we must, therefore, discriminate between the psychological process through which the judgment arises — and in which there is a definite difference between the initial idea (the subject) and the concluding idea (the predicate) — and the finished judgment that can be formulated as a relation of identity, in which the difference between subject and predicate loses all significance.[46] But in external events, the order of members has the same significance that it has in the movement of thought. If I have recognized that there is an equivalence between heat and motion, it is, considered purely abstractly, a matter of indifference whether I go from heat to motion or from motion to heat. But, in the real world, the 'direction of change' is

a question of life and death. Being, in fact, grows different according as the preponderant changes tend in this direction or in that. Time, therefore, cannot be reversed, and this proves that equivalence cannot be the end-all of our knowledge. Besides their equivalence, we must know the actual direction of the transformations of fact; and this knowledge can only be won from constantly new experience.

And here we come upon the fact that every relation of equivalence, — as, in general, every causal relation — first becomes effective in fact when certain conditions, especially forces of release, are present. With respect to the presence of these conditions, there arises a new problem: Can one also show that these forces of detent stand to their own causes in a relation of equivalence? We light here upon an endless series, in which definite, concrete answers give out long before the questions do. We have here also a purely logical analogy; since every absolute relation of

identity (A = B) of two concepts rests, on nearer inspection, upon definite conditions (so that according to Jevons's formula it might be expressed AC = BC[47]), there arises the new question, how the identity is related to this condition (C); and so thought wanders on indefinitely.

There is, then, no prospect of freeing ourselves from the historical elements of our knowledge. The measure of the development of our knowledge consists, first, in the extent to which the elementary notion of causation (inevitable succession) can be employed rather than the bare fact of occurrence of simultaneous or successive differences; and thereafter, in the extent to which this elementary notion can be replaced by the ideal concept of causality (equivalence or identity). But the process of knowledge consists at all times in an ascent through the three stages here pointed out, — an ascending process that must always be repeated from each new starting-point. This necessity is conditioned

by the reality of the time-relation. Hence, absolutistic conceptions — whether they appear in idealistic or realistic form — always have a tendency to slight the time-relation or to consider it as only 'empirical,' if not illusory.[48] If the time-relation is an illusion, it is another illusion of the second potency if we imagine that we can lightly rid ourselves of it. For us, existence can never be absorbed into thought without remainder.

5

From yet a third point of view, the problem of knowledge reveals itself in all its severity, while at the same time a continual development of knowledge appears to be possible. In every cognition we can distinguish between *a subjective* and *an objective element*, between the knower and the thing known; both terms, however, are only given in mutual relation, although within the relation either may be the more prominent term.

What part, then, of our knowledge is subjective and what objective? Already, from

our discussion, it is evident that this question may be variously answered. In the domain of natural science, there is a tendency to credit all qualitative differences, everything that breaks continuity, and ultimately, perhaps, everything that violates identity, to the Subject. Sense-qualities, space and time distinctions, are also only subjective. Arguments for this view may be found in the fact that the differences which we perceive in qualitative, extensive, intensive, and protensive (temporal) relations are due to our psychic dispositions. Our sensations are acts of discrimination whose results depend upon the organization and previous history of the feeling Subject. The differences discovered have value only in relation to the point of view of the Subject in his different relations. To this must be added the discontinuity of our attention, which moves by jerks, now toward, now away from, its object; and from this also arise differences and interruptions which cannot be attributed to the object.

The dogmatic and speculative school of philosophy and of natural science has been inclined to follow this line of thought. The emancipation from the merely subjective here would lead immediately towards continuity and identity as the essence and norm of truth.

The critical philosophy asserts in rebuttal that the qualitative, extensive, intensive, and protensive differences form the material given to our knowledge and set the tasks of our investigation. As our personality endeavors to weld together its sporadic elements, to harmonize conflicting tendencies, and to free itself from obscurity and self-contradiction, so our understanding endeavors to transmute the differences actually given to us into stages of one and the same continuous developmental process, or into forms of one and the same content. The demand for continuity and identity lies in the depths of human consciousness; and man seeks, therefore, to find them again in the content given to

knowledge. Furthermore, consciousness itself cannot give rise to the differences which form the material for it to work on, no matter how much the shape and degree with which they appear in consciousness may have been determined by its involuntarily operating conditions. In the most recent discussions of the epistemological basis of natural science, there is a tendency to derive all unifying simplifications mainly from the economy of the knowing Subject.

In reality, we nowhere and at no time possess the pure Subject, with its forms, as an antithesis to a pure object, or rather 'thing-in-itself,' from which the plurality of the content of knowledge comes. Kant decided this point prematurely in thinking that the subjective forms of knowledge could be determined once for all so that the 'matter' of knowledge would be left to come from the 'thing-in-itself.' But in the special development of his epistemology he could not avoid asking whence the forms sprang, or pointing out that they

too are determined ultimately by the 'thing-in-itself,' since the forms no less than the 'matter' are *given* and must be ascertained through psychological analysis. And since the 'forms' designate the more constant element of our knowledge, the underlying presupposition of Kant's philosophy turns out to be something that he could not claim to verify, namely that the 'thing-in-itself' works uniformly — for forms otherwise could not exist, or at any rate could not be applied.[49] Kant, consequently, hesitated between the two views above described, although it was evidently his intention to cling to the latter. Continuity was for him the general basal form of the categories, and synthesis the fundamental law of action of the knowing consciousness.

The problem is more complicated than Kant saw it. If we distinguish in our knowledge between Subject and Object, we really set up an objectively determined Subject (S_o) as the reverse of a subjectively determined Object (O_s). The properties or 'forms,'

which we attribute to the Subject, cannot be explained from the concept of the Subject itself (the pure S); they are there as objective facts, quite as much as the other properties with which our knowledge has to do. In like manner, the properties or determinations which we attribute to the Object always belong to it only in relation to a Subject, and indeed, upon closer consideration, to a Subject of a certain peculiar constitution. Hence the problem always repeats itself: Whence does the Subject get its objective content from? and what relation obtains between the subjective determinations (qualities, etc.) of the Object and its proper essence, as Subjects of a different nature from ourselves would apprehend it?

Here, again, we run up against the irrational, and here perhaps we see most clearly how inexhaustible Being is in comparison with our knowledge. The justification of Kant's setting up the notion of the 'thing-in-itself' lay in the fact that a transcendent concept is needed in order to express the

irrational relation between what he called the 'form' and the 'matter' of our knowledge. Yet if we wish to hold to the notion of the 'thing-in-itself,' we can use it in the spirit of Kant and still avoid the contradictions which cling to it in Kant's philosophy. We can do this by employing it to express the fact that the difference between Subject and Object always springs up anew whenever we think we have found an objective explanation of the character of the Subject or a subjective explanation of the character of the Object. Each refers to the other indefinitely, and the irrational crops out in the fact that an infinite series (of the type: $S_1 \{ O_1 \{ S_2 \{ O_2 \cdots$) is both possible and necessary. Thought must constantly be set to work afresh to find predicates for the determination of being, because the springs which feed the stream of thought are inexhaustible. The 'thing-in-itself' is the vague starting-point of thought, which ever and anon reappears in new form and calls for new determination.[50] It may be

that the true symbol for the relation of our knowledge to Being should not be an irrational but an imaginary number, since being may possess attributes that cannot be comprehended or defined by means of the dimensions in which our thoughts can move. That this may be possible can in any case no more be contradicted than the possibility that being may be rational only in a very narrow sphere, and that it might some day turn toward us another side, about which we could build no structure of connected and practical thought. Then, as I have elsewhere shown,[51] a logical ice-age would set in for us. The relation between Subject and Object would not arise at all; there could be neither an S_o nor an O_s.

In an earlier connection I made use of Schiller's words: "Wide is the brain and narrow is the world;" and now the sentence can be reversed: "Wide is the world, and narrow is the brain!" Knowledge, however rich and powerful it may be, is after all only a *part* of Being; and the problem

of knowledge would be soluble, only if Being as a totality (in so far as we can conceive it as such a totality) could be expressed by means of a single one of its parts. In any event, our expression must always remain symbolic; even when our knowledge reaches its climax, it gives us only an extract from a more inclusive whole. Among all the possibilities of thought, only a single one appears in the reality recognized by us. The reality which we recognize is, however, only a part of a greater whole, — and here we are not in a position to determine the relation between the parts and the whole. An exhaustive concept of reality is not given us to create.

CHAPTER III

THE PROBLEM OF BEING

I

THE problem of consciousness and the problem of knowledge both point beyond themselves: consciousness is a part of Being, and it is the task of knowledge to understand Being. Here arise quite naturally the questions, what place consciousness holds in Being, and what picture of Being knowledge can give us. The problem to which we are thus introduced may be called the *cosmological* one, being the problem as to how far a final world-view is possible. *Cosmos* means Being considered as a totality, and *logos* means doctrine, or view. It would also be proper to use here the word 'metaphysic,' although it has been used in a great many different senses and is thus less exact.

The cardinal difficulty of this problem lies in the fact that the cosmological principles — the principles which should underlie our view of the world — cannot be simply drawn from some particular empirical realm, for the whole undertaking is to unite all empirical realms into a totality and to give that totality a positive character.

Any attempt to treat the problem of Being must bear a formal as well as a real character. On the one hand, it must be asked what demands are to be made on the concept which assumes to be able to comprehend Being in its totality, and whether it is possible to satisfy these demands; on the other hand, it must be asked, what positive characters of such a totality can be specified, so far as we are able to conceive it.

The *formal* motives of speculation as to the nature of Being lie deep in the constitution of consciousness and knowledge. They are connected with the demand for continuity, a demand in which both personality and science coincide. The nature of thought

manifests itself at all stages and under all forms as a connection, a synthesis, and it is therefore not to be expected that thought will voluntarily give up the attempt to knit its sporadic data together. This effort has a peculiar and practical importance because firm and continuous connection is the only criterion that we have in doubtful cases, if it comes to a matter of distinguishing dreams or illusions from Reality. The more comprehensive and internally connected the concept of Reality we could form, the greater would be its trustworthiness. Hence, on both theoretical and practical grounds, there will be an inclination to go to the limit, to seek out the continuation and the conclusion toward which theoretic and practical explanations already tend. The ideal would be reached if we could establish a complete harmonization of all our experiences — a continuous totality, with which all particular empirical realms, each according to its own laws, would connect themselves.

But the discussion of the problem of knowledge must already have taught us that such a finished world-view is impossible and, to a certain degree, would be self-contradictory. None of the particular empirical fields lies before us all complete and closed; there are always new experiences and new riddles; our coördinating thought constantly has to undertake new tasks. Since our knowledge always works by means of combination and comparison, every totality — if it is to be the object of complete *knowledge* — must be held or placed alongside of something different from itself: only thus can it be given complete determination; but if there were anything different from itself, it would not be a *totality!* It is a matter of indifference whether we hold fast to the first empirical totality which we attempt to construct, or whether we go back to the principle of such a totality and give to it the name 'God,' in contrast with the totality itself, the 'world' — the antinomy is the same in both cases.[52] The

irrational meets us here as it did in the problem of knowledge, and herein we find a certain inner connection between the two problems. The fact that knowledge is forever unfinished may perhaps be connected with the fact that Being itself is not ready-made, but still incomplete, and rather to be conceived as a continual becoming, like the individual personality and like knowledge. Perhaps Being also conceals simultaneous discords in itself, which make it impossible to construct an harmonious whole. If so, the analogy between the different problems would be peculiarly plain. In their different systems of thought, the philosophers have been too sure that Being in itself was a closed and constant totality, and that it was only our wills and minds that had to battle incessantly to exist and to attain harmony.

A *practical* motive of speculation springs from the prominent part which some one phenomenon, some one department of experience or side of Being may assume for

us. The tendency may then arise to use this phenomenon or aspect as a basis for interpreting the meaning of all Being, and deriving the other phenomena from this, or tracing them back to this. The different cosmological systems are just so many attempts to sound the depths of Being, to test how wide a searchlight one thought can throw over the whole of it. They are a series of thought-experiments, by means of which the carrying power of our largest thoughts, their capacity to serve as the groundwork of a comprehensive world-view, has been tested.

Every attempt of that sort necessarily makes use of *analogy*, as Leibniz first discerned with the clear eye of genius. In all science analogy may occupy a significant place. All designations of psychical phenomena have originally been formed on the basis of an analogy with physical phenomena, and in psychology we are constantly compelled to work with physical analogies. It, therefore, becomes an im-

portant question, how far they are valid. According to Kant, the doctrine of causality expresses the idea that a relation exists between the real data of the world, analogous to that between reason and consequence in our thought. The atomic theory and the so-called mechanical conceptions of Nature have very recently come to be considered as so many vast analogies, by means of which the qualitative changes of Nature can be described and calculated. Also, in discoveries, analogy is of great importance. The analogy between chemistry and physics helped Robert Mayer to his discovery of the conservation of energy. But if analogy is employed metaphysically or cosmologically, it is not a *single* realm of Being serving to illuminate *another single realm;* it is a single realm that is used to express Being as a totality. This symbolism is of a different kind and has different validity from that brought to bear between particular fields; it cannot be carried out to its full consequences, and it cannot be

verified. Neither the justification nor the limits of analogy can here be strictly shown. In these respects cosmological or metaphysical symbols are different from scientific ones. As I have attempted to show in my 'Philosophy of Religion,' religious symbols share the fate of the metaphysical. In both cases the attempt is made to create absolutely valid final concepts; the only difference lies in the motive.

In the problem of knowledge, likewise, we came upon an irrational relation between part and whole. There it was connected with the question *how far the whole could express itself through and in a single part.* Here in the cosmological problem, the question is *how far determinations can be deduced from a single part which are true of the totality as such.* It is one and the same question that meets in both problems, only from different directions.

The character and value of a theory of the world depend not only on how clearly and logically the analogy is worked out, but

also on where the analogy is drawn from. The phenomenon (the part or aspect of experience) on which the analogy is based may be called the *type-phenomenon* (Urphänomen). We are indebted to Göthe for this expression. But Göthe understood by the word *Urphänomen* not only a phenomenon of a typical kind that might serve to illuminate other phenomena; to him it signified a fact that is at the same time a law; so that one only needs to mention it, in order to see through it; a fact, moreover, that need not be considered as composite, since, being itself, as it were, the symbol of everything else, it sets bounds to our view, and stirs up not only deep wonder and awe, but also the feeling that we stand at the limit of our powers.[53] How unfortunate this concept was for Göthe's theory of colors, is well known. By the very definition itself he wanted to exclude every further examination and explanation of the phenomenon chosen by him as type. But this defect need not of necessity cling to the type-phe-

nomenon. The term may well denote the point of our experience from which we attempt to take our bearings in all directions, but it may none the less remain an object of farther investigation and explanation. The chief point is whether the phenomenon chosen is so individual and significant that it can possess typical character for us. The interpretation of Being must always issue from a single place in experience, and it may so issue without exempting that place from special scientific treatment.

But now where shall we look for the type-phenomenon? Around this point the battle of the different world-views revolves. Now *life*, now *thought*, now *matter* is taken, and made the basis of the interpretation. Before proceeding to the consideration of the most important of the type-phenomena which cosmological interpretation has pressed into its service, let us linger a while over the interpretation itself.

2

Metaphysics may become dogmatic and thereby work a twofold injury to science, — partly by thus cutting off every scientific explanation of the selected 'type-phenomenon,' partly by conceiving her analogical methods as more scientific than they really are, and consequently forgetting the need of constant empirical confirmation. She ought not to interfere with the household management of the special sciences, — no more with that of mental science than with that of natural science. Her philosophical duty is at the outposts of scientific thought; her task is to give ultimate interpretations. The theory of knowledge led us to a transcendent notion (*Grenzbegriff*) of that which in our world-view occasions the unending conflict between quality and quantity, elementary and ideal concepts of causality, subject and object. If we call that which lies at the basis of these antitheses the 'thing-in-itself,' then this expression indicates the philosophical place of metaphysics or of cosmology.

The final interpretation will bear more the impress of art than of science. The transition from the empirical and critical parts of philosophy (psychology and epistemology) to cosmology displays a certain analogy with the transition from historical criticism to historical narrative. The historian works his critically treated material into a totality of events and characters; the fragmentary is rounded out, and it is a rounding out in which the personality of the narrator will necessarily play a part. Cosmological philosophy will give us, likewise, a complete picture of Being on the basis of our knowledge of Being; it will work together the scattered features into a whole in which a single element (the type-phenomenon) exercises especial influence, so that the coloring of the whole depends on it. Into the choice of the type-phenomenon and into the carrying out of the analogy, a distinct personal element enters. A great philosophical system is a work of art, a drama.

The practice of this art will become constantly more difficult. For hereafter it will not only presuppose a wealth of material to be arranged and connected together with constructive power, but it will also presuppose the ability to avoid dogmatizing, and to preserve to ideas their significance, and their importance to ideal constructions without confounding them with absolute truths. It requires one, as Lessing said, to think gymnastically, not dogmatically. The art will consist in coupling bold creative thought with watchful critical consciousness. In my essay on 'Philosophy as Art,' I have especially emphasized this aspect of the matter. The artistic element in philosophic thought was early brought into prominence by Schopenhauer; but he had rather in mind the *involuntary* origin of the various systems of thought, which displaces the 'why' of science with the 'what' of art. When Albert Lange called philosophic construction an art, he was thinking primarily of the idealizing ten-

dency, of the demand to see in ideal images an expression of the highest reality.[54] In the religious problem, we shall run upon a relation that is akin to the just-mentioned transition from science to art; only it will in the case of religion be concerned with the settlement of a view of *life*, while here it is concerned with a view of the *world*.

As the history of philosophy shows, the conditions for the exercise of the above-mentioned art are not present on a large scale at all times. Long accumulation of material and of historic points of view, intense concentration of spirit, and an energy of thought born of the severity of the problem are all demanded. We find in the history of philosophy that systems lie closely grouped together, sometimes confined to single localities. The fifth and fourth centuries before Christ gave birth to the great Greek systems, and Athens was the centre. In the seventeenth century arose the chief systems of modern

times, which grew up on the basis of the manifoldness of matter, of the new thoughts of the Renaissance, and of the sciences of Nature just begun. In all this, Holland held the central place. At the beginning of the nineteenth century, the systems of philosophical idealism were all founded in Jena, where Kant's pupils fell in with Göthe's disciples and with the vanguard of romanticism. At such epochs philosophy appears as one of the symptoms of intellectual progress; while, in the intervals, the particular discussions of psychological, epistemological, and ethical problems go their more leisurely gait.

I now proceed to call attention to the more important type-phenomena which may serve as systematic foundations of cosmology, and which have historically performed such service.

3

The first fact, whose consideration as a type-phenomenon of Being closely concerns

philosophy, is that Being is to a great extent *intelligible:* we can recollect phenomena, infer from one phenomenon to another, and find continuity between them. And if our hypotheses are proper working hypotheses, and also if the old, naïf concept of truth is compelled to yield to the dynamic or symbolic concept of truth (see III, 2), then the very fact that we are able by our powers and our methods to penetrate to a certain degree into Being must be connected with the essence of Being itself. The applicability of a method always constitutes some evidence as to the constitution of the matter to which it is applied. The fact that Being is intelligible to us indicates an inner unity in Being itself, coming to light in the conformity to law that characterizes the course of phenomena. Our criterion of reality consists, indeed, only in a firm connectedness; and it is but a natural extension of this principle when we read into Being a *unifying power* that binds single elements and events together.

Philosophy has a natural tendency to ascend to such a principle. Plato and Giordano Bruno, Spinoza and Hegel, Fechner and Lotze, worked in that direction; and even Kant, in spite of his great critical circumspection, testifies to the importance of this idea. While popular thought is inclined to seek a final solution by mounting up the ladder of causes until it ends with a first cause, — a way which only leads to an endless series, — philosophic thought prefers to seek a solution in depth rather than in breadth, and to ask what the presupposition is on which a rationally connected world can somehow be built, however hypothetically this may be. Here *causation* stands as the type-phenomenon, and not least on this account do discussions about the principle of causality lay claim to so large a place in the history of modern philosophy.

In opposition to Monism, which suggests itself to us in this way, we may point out that the essential condition for the scientific understanding of phenomena is not

only the assumption of an inner connection between them, but also the assumption of that plurality of them between which the connection takes place, and to which the laws discovered by science apply. Why not then consider *this plurality* as the type-phenomenon, so that our metaphysics should be pluralistic, not monistic?

The answer to this question is given in the fact that we draw all the properties or forces with which we endow the elements of being (whether we conceive them as material atoms or as psychical monads) from the law-abiding connected whole whose components these elements are. The properties of things are the constant ways by which they influence, or are influenced by, one another. 'Force' is here the element that for our mind contains the reason for the change of one or more of the other elements. The case is just the same with the related concepts of energy, possibility, and individuality. All these concepts are secondary, in comparison with the concept

of *law*. In the case of individuality, for instance, we must not only think of the law defining the behavior of the individual phenomenon toward its surroundings, but also of the law that its inner relations obey.

Another consideration points in the same direction. All knowledge begins with the analysis of given observations (perceptions or recollections). In order that such a perception may become the object of analysis, it must first appear as a totality, embracing a sum of elements (parts or properties). Every cognition starts from a something cut out from a greater whole. Every definition is a limitation. Every judgment makes use of presuppositions which lie beyond the act of judgment. Every conclusion presupposes several premises whose validity must often be established in very diverse ways. We always move within a more inclusive whole, in which are to be sought the conditions for the particular results that we are striving after.

Consequently, if in the world of reality

as well as in the world of pure thought, the particular gets its nature and its validity from the connected whole in which it appears, it would seem as though Monism were a more fundamental point of view than Pluralism.

But the theory of knowledge shows that reason has its limits. The empiricist and the sceptic will always be able to check the monistic metaphysician, because they can taunt him with the actual limitations of knowledge. We cannot even use *fact* as a criterion in a thoroughgoing manner, or carry out with strictness the distinction between dreaming and reality. With the same right with which we reason from the possibility of rational knowledge to a unifying force in Being, we might, apparently, reason to an irrational power in Being, to a cosmological principle that prevented the elements of Being from standing in a rationally determinable relation to one another.

But hereupon the monistic party might rejoin that the consideration that the unify-

ing force does not prevail everywhere, may indicate that Being itself is to be conceived as in process of becoming, of evolving, and that what appears to us as law and order and connection, is the result of a development in the interior of the existent that is not yet complete. From this point of view, therefore, it would be *time* that conditions the irrationality. So long as the thought, as knowledge, is not completed but still becoming, just so long Being as a whole *cannot* be complete. *Thought and knowledge are themselves a very part of being!* And if they are in process of becoming, there may well be more that is also becoming. It is a strange contradiction in the grand rationalistic systems, that, although they may be able to explain everything else, yet they are powerless to explain the striving, laboring nature of the thought which produces them. In Plato and Spinoza, Hegel and Boström, this contradiction appears.

Critical Monism, as I call it, which asserts the reality of time, and hence the perma-

nent unfinishedness both of Being and of knowledge, can nevertheless still quite properly make of causality and rationality the type-phenomena of its view of the world. It finds, then, in Being a force struggling towards unification, which, by progressive evolution, overcomes the sporadic and hostile elements. Perhaps even new elements may perpetually arise, which are only to be worked together in the same fashion, so that the development must begin all over again. Thought's own work appears thus in a cosmic light. The goal that thought sets before itself (even if it replace the static with the dynamic concept of truth) is to establish a constant connection between our methods and hypotheses and the real processes of Being. If thought succeeds in approaching this goal, then Being itself becomes more rational than it was before, because a new constant and harmonious relation has been wrought out, and now is realized. The thinker to whom it is given to advance in this direction can rightly say:

"From place to place we are inside of things," no matter how far off and sublime the supreme ideal of thought may loom up before him.

4

Can we not now attempt a real, positive determination of the unifying principle which, according to the hypotheses thus developed, holds Being together in its innermost nature? Every attempt in this direction must to an especially high degree bring analogy into requisition. Here we have no fundamental fact to which we can refer, such as we had connecting the problem of Being with the problem of knowledge (p. 131). In attempting to determine the principle of Being, our thought turns to the most fundamental distinction which familiar phenomena present, viz. the distinction between the psychical and the material; but here it seems as though every attempt in a cosmological direction must run against a deadlock.

The position which I adopt, purely methodically and empirically, for the problem

of mind and matter, has been already developed in Chapter II, section 3. But the problem comes upon us now from another angle. For, whether we be, from the methodical and empirical point of view, dualists, materialists, or monists, the question still remains, What do we think of the fundamental essence of Being? — what sort of an attribute lies at the bottom of the way we finally think — if we think our final thoughts — of Being.

If I take the analogy with the spatially extended and moving as my basis, not only my method but my metaphysics will be materialistic. As an absolute hypothesis, *Materialism* possesses the advantage of giving us the picture of a great continuity, and does not compel us to abandon the immediately perceived. But Materialism is a childlike and naïve conception. It is the first philosophy of man. The impression of the connectedness and sweep of the material world exercises such overwhelming power, that ever and again essays

are made in the materialistic direction, although — since the advent of the critical philosophy — not with such dogmatic assurance as formerly. They will always be shipwrecked either by the impossibility of tracing back the psychical to the material, or by the epistemological reflection that we have matter only as the *object* of consciousness, and that, if materialism were true, nothing could exist *to which* the material object or phenomenon could be presented. Hobbes, whose thinking tended decidedly toward materialism, came to a halt before the consideration that among all phenomena the most important is *just this, that something can be a phenomenon to us at all.*

In contrast with materialism, *metaphysical Idealism* makes analogy with psychical phenomena its basis. It may meanwhile pay homage, empirically, either to dualism (so Lotze), or to materialism (so Schopenhauer), or to Spinozistic monism (so Leibniz, Fechner, and Wundt). The last word of all these forms of Idealism is that only the

analogy with mental conditions which we find in ourselves can give us a key to the understanding of the innermost nature of Being. Only ourselves do we know from within, everything else only from without!

Psychological experiment has taught us that there are many degrees and kinds of psychical being, and if we wish to utilize them in the exegesis of all Being, we must naturally assume that these series of degrees and qualities are continued indefinitely. Thus, idealistic cosmology may vary greatly, and historically it appears under many forms, which have been conditioned by other motives determining the world-view (*e.g.* by the tendency to optimism or pessimism, by the special emphasis on thought or on will, etc.). As far back as the Indian Upanishads it appeared in the doctrine that Bráhman (the world-principle) is Atman (soul).

Sometimes idealists deny that they are using an argument from analogy, and assert that their metaphysical Idealism (or idealistic cosmology) has been reached by

the straight path of logical construction, of dialectical method. But the very proudest structure of thought that a man ever flattered himself to have successfully erected, namely Hegel's system, really only seeks to show that everything in Being is connected just as thoughts are in the mind of man; in point of fact, the human mind is used by Hegel as the basis of an analogy, simply because it is the best example of an internal totality which we possess.[55]

The idealistic reasoning by analogy could only lead to a final solution if we were vouchsafed the means of positively determining the different degrees and kinds of psychical existence which must be met with in the world, so far as metaphysical idealism holds good. But, as I have shown in a former connection (II, 3), we are not in a position to go farther than an indefinite notion of potential psychical energy. A verification of Idealism is impossible. Even if Idealism could be thoroughly carried out, yet the difficulty would remain that matter could

no more be derived from the psychical than the psychical from matter.

But it is by no means certain that we are forced to preserve a neutrality between the materialistic and the idealistic solutions of the problem of Being. The distinction between mind and matter is to be sure a cardinal one in the content of our experience; but there is no proof that there is no other attribute in being besides these two. *If* the problem of Being *had* to be solved by human experience, then one of the two possibilities would have to be chosen. But the question is whether our experience furnishes us with sufficient elements for a real solution. The empire of Being may be much vaster than the possibilities of our experience. Here, again, it is true that the world is great, but our mind is small; again we come upon the irrational. If it could be proved that the distinction between mind and matter were a contradictory, not a contrary, that consequently there was in things an absolute "either — or," then the problem of Being would be

simpler than it is; and yet it would be more complex than human thought — inclined, as that is, to think itself fully accoutred for religious and metaphysical speculation — has often supposed. *Critical Monism*, which strives to maintain the thought of unity without dogmatizing, must perceive that it is lacking in the prerequisites for a complete solution. The possibility that there are more forms than our experience exhibits may signify that the whole problem lies deeper than has been supposed. There might, for example, be a tap-root of Being from which both mind and matter sprang, and the insolubility of the problem might be due to our ignorance of this tap-root.

5

A third type-phenomenon has to be chosen when we make our choice between conservation and development (being and becoming). Ancient thought was throughout inclined to hold fast to unmoved Being; it was a conceptual philosophy, which first and

foremost sought to trace back phenomena to fixed generic concepts. Plato's doctrine of ideas formed the pinnacle of this attempt (cf. II, 1). This tendency — or the same psychical bent which it exemplifies — not infrequently comes to the front in modern research, and, for that matter, not only in philosophy, but in science generally where fixed, unchangeable modes or types are striven for. Even when ancient thought accepted the idea of evolution, it was still peculiarly prone to believe in a rhythmical process which would repeatedly bring around the same conditions and events. Evolution as a constantly advancing series of changes is a modern idea, for which we are indebted to wider experience in the realms of both history and nature, but which has been formed under the influence of the Perso-Christian type of religion.[56]

The leading part played by the concept of evolution in modern thought is connected with the fact that the concept of causality has been so prominent. The more the elementary concept of causality is approxi-

mated, by continued research, to the ideal concept of causality, the more will the causal relation betoken a continuous process in which the succeeding members are determined by the preceding. The concept of evolution involves, as soon as it is proved, the idea that *direction* is an essential fact, so that successions cannot be reversed (III, 4). While formal science, which rests upon the principle of identity, can move forward or backward in its trains of thought, the time-relation, that is, the direction of time, has a different importance for *real* science, which on this account possesses an historical character. In it the concept of 'event' is a type-phenomenon. But in the concept of evolution the idea is involved that something not only happens, but also that, through the series of events, results are reached which bear a certain wholeness of character, because a multiplicity of elements have been so united that, in spite of their differences, they operate jointly and with a certain finality upon their environ-

ment. Above all others, Herbert Spencer has copiously illustrated and analyzed the idea of evolution, and has maintained that its essential earmark is the union of differentiation with integration. With this conception as a measuring rod, we determine which — from a purely theoretical point of view — are to be called 'lower' and which 'higher' states or forms in a changing series.

In spite of its connection with the concept of causality, the notion of evolution is an independent concept, underivable from the general causal concept, although it presupposes the latter. The doctrine of causality would be valid even if there only took place a rhythmical fluctuation without the progressive formation of new totalities. Evolution stands as an empirical fact that throws light over the nature of being. Abstractly considered, it would be quite possible that the different causal series of beings should either not unite with one another at all, or should only coincide so as to bring about

discordant collisions. But experience shows how they can, under certain conditions, so come together that they unite in more composite processes and beget peculiar totalities. The formation of star-systems; the origin, organization, and unfolding of life, the existence of the spiritual life, and of the social and historical life of man; all bear witness to an individualizing and totalizing tendency in Being. These phenomena set before research the greatest of problems; if we point to them as type-phenomena, we decide nothing whatever as to whether the problems are soluble or not; we consider them only as characteristics of Being, given once for all. It is to be added here, that it is surely a grave misunderstanding to think, as not a few do think, that these phenomena would be more worthy of note, if they were *not* explicable by laws discoverable by science. On the contrary, if a 'natural' explanation could be found, we could then with greater assurance than before draw the inference that the individualizing and

totalizing tendency is grounded deep in the bedrock of being.

But how deep? Experience often shows us not only a purely external and indifferent relation between different causal series, but often collisions or, at least, inharmonious conditions between such series, which hinder the origin or upbuilding of individualities and totalities. On evolution follows dissolution; and the question arises, whether the rhythmic change of these processes leaves traces of any general progressive course of development, or whether we must hold by the ancient idea of a recurrent rhythm as the last word on the problem.

Here, once more, the irrational crops out; but in more acute form than at the earlier points where we met with it. Here it indicates arrest and dissolution, the tendency to remain at the most elementary forms of Being, or to go back to them. Being has here, the deeper our investigations penetrate into it, the form of a conflict, of a great battle, which all forms that bear

the impress of individuality or totality must fight for their very existence. The battle itself is two-sided: it may be a means of development, but it may also lead to death. Which of the two possibilities is predominant?

With this we see more clearly than at the earlier points the impossibility of forming an absolutely final concept of Being as a whole. If conflicts between elements and between finite wholes be an *essential* characteristic of Being, then it must be a trait which is to be found only in limited sections of Being, but not in Being considered as a totality; because an absolute totality can encounter no external opposition, and can wage no battle for existence. So we must content ourselves with saying that wherever we find Being, we also find within it such a strife going on between elements and totalities. The great question is whether out of this strife the elements or the totalities (the solar systems, organisms, souls, human societies) will come off victorious. Em-

pirically, we stand in the midst of the vast world-process and can go no farther than to assert that we apply no purely subjective standard when we designate one form of Being as higher or lower than another, because evolution, which involves this distinction, is a phenomenon characteristic of all the Being known to us, — is, in short, a type-phenomenon.

This result, with which we are now about to leave the problem of Being, enables us to pass naturally to the last of our problems, the problem of ideal goods.

If Being were finished, harmoniously and unchangeably, Ethics would be impossible. All Ethics demands that there be effort. But there would be no room for effort, if everything were in eternal and actual completeness. The necessity devolving upon all individualities and totalities to fight for their existence, the fact that there are always discords to overcome, discordant tendencies to unite, — it is precisely that that makes Ethics possible. In other words, Ethics investi-

gates the principles of an *extension* of the individualizing and totalizing tendency of Being, of which experience gives evidence. Ethics rests upon a self-contradiction, unless the course of the world is, or may be, partially conditioned by human will, just as it is, or may be, partially conditioned by human thought (p. 137). So Ethics takes up the problem of continuity where the first three problems laid it down.

The religious problem is even more closely connected with the foregoing considerations, because, as I shall try to point out, it is concerned with the continuance of values during the struggles for existence that Being seems to involve.

CHAPTER IV

THE PROBLEM OF VALUES

THE treatment of the problem of the Good as a special problem presupposes a separation between understanding and evaluation, which has not always been recognized, and has not yet been fought to a finish. Philosophy has been inclined to permit their intermingling. So Plato's 'Ideas' and Spinoza's 'Substance' express by the same term how those two thinkers understood Being and how they estimated its worth. At least there has been a tendency to make appreciation only a consequence of understanding, while, conversely, mystical and theological schools have been inclined to treat understanding as dependent on appreciation. In any event, they are by no means entirely independent of one

another. The understanding has its value, and without value it would be non-extant, since men would then cease to strive after it. To some the joy of knowledge is indeed the very highest; and the principles of our evaluation of goods can become an object for psychological and historical understanding because all worth rests on the relation of events and of conditions to life at its different stages, to the existence and evolution of life. It is now evident that the problem of values exhibits an analogy with the three earlier theoretical problems. In the sphere of value, just as in that of personality, of knowledge, and of Being, it is the principle of continuity that leads to the momentous problems.

Whatever conduces to satisfaction or supplies a need has *worth*, or is a *good*. Sometimes it is through the arising of a satisfaction that we first notice that there has been a lack in our existence. Sometimes we notice this lack in advance, and it gives rise to want, or breeds impulse and desire.

If the worth-possessing thing cannot be immediately grasped, we erect it into a purpose and seek means whereby to attain it. Whatever appears to us as a means of winning a thing of immediate worth, possesses mediate worth for us. In our estimation of worth and our purposes, the inner nature of our feeling and will is revealed. As the concept of purpose depends on the concept of worth, so also the concept of the *norm* depends on the concept of purpose. The norm is the rule for the activity which is necessary to attain the purpose.[57] It was a fatal thing for the treatment of the problem of worth when Immanuel Kant reversed the relation and tried to derive the concepts of purpose and of worth from the concept of the norm (of law). This is a psychological impossibility.

Experience shows that different standards of worth have validity for different individuals and for the same individual at different times. I have already men-

tioned the worth of knowledge; besides this, we must especially mention the worths which are bound up with the demand for self-preservation and with the organization and development of life in greater or smaller ways, — with movement and activity, with imagination (whether fanciful or of reality), etc. If different standards of value are to be compared with one another, — and every known standard of value is subject to such a comparison, — then a primordial value must be presupposed, by which the rank of other values can be fixed. A definite standard must be laid down as an ideal measure for all other values, if consistent thought and study in the realm of value are to be possible. Then, with a given fundamental standard — supposing we have sufficient experience — we can construct a system for estimating values, in which every particular good will hold its place according to its relation to this fundamental standard. But thought, 'practical reason,' is needed in order to determine

this relation; and in order, at the same time, to find ways and means of producing or discovering particular values under particular conditions. In a vacuum no estimation of worth (or unworth) is possible. The concept of the primordial or ideal standard-good is in the problem of values (in Ethics, therefore, and in the philosophy of religion) what the concept of the type-phenomenon is in the problem of Being (in metaphysics therefore).

The problem of estimating values divides itself into two problems, the ethical and the religious. Ethical worth is concerned with human affairs, property, and institutions; religious worth reaches farther and appraises Being according to the fate of values in the world of reality. It will become evident that in both problems — as in our earlier problems — the relation between continuity and discontinuity is of decisive importance.

2

A. The Ethical Problem

(*a*) *Ethical Work*

As the discussion of the problem of Being showed, there is room for work being done by means of which Being develops itself. Such work is done in all human culture, but especially in ethical endeavor. This latter may be designated as an effort to produce greater continuity, partly in the single personality, partly among different personalities. We shall find that the measuring rod of ethical endeavor, and the principle of ethical good, are determined by the principle of continuity.

Personality presupposes coherence, or continuity; and this, again, demands as a condition that there should be a single primordial value that determines the value of single instants, periods of life, abilities, and impulses. The development of true personality presupposes a striving to get

away from the momentary and the sporadic, — an overcoming of the tendency to isolation and tyranny on the part of single moments or demands. It is a process of harmoniously incorporating the single moments and elements with the personal life as a whole. Here is a task to perform, a battle to be waged, that demands different degrees of energy in different individuals.

There are, it is true, moral attitudes which, in opposition to the whole of life, contend for the rights of the single instants and impulses, of the successive and simultaneous differences. But that is not inconsistent with the fact that the principle of continuity is the standard of measurement. Such attitudes may be justified so far as they insist that the subordination of moments and particular impulses shall be *grounded*. Continuity signifies, not absence of distinction, but the ordering of differences in a graded series. Life as a whole can always be called to account by single

elements in it. It will always seem an imperfection, when an instant, a period, a capacity, or an impulse is treated as a *bare* means to something other, without independent value of its own. The art of life consists in conferring immediate and mediate worth upon things at the same time. When the Ethic of the instant and the particular steps out in absolute form and proclaims the sovereignty of the single moment or element, one often finds at bottom a presupposition that all life is *represented* by the single instant or demand, or is *concentrated* in it, so that all other considerations fade away. This happens in great moments of self-sacrifice, when a man, as Aristotle says, would rather perform a single great and noble deed than many small ones; and it also happens when a man hears the summons of his whole life in the special development of a single talent. Or one may believe in such a harmony among all the different moments of life that complete absorption into one of them

is possible without the satisfaction of that moment robbing the other moments at all. This appears to have been Aristippus's view. Or the highest state may be that of floating above single moments and employments, with the power to let one's self down at will and without being bound for any length of time to a single point, as in the 'æsthetic' view of life depicted by S. Kierkegaard in the first volume of his 'Either — Or' (Entweder-Oder). All these views evidently are not without regard to the whole of life as their background.

When an opposition of the momentary or the sporadic to the demands of the whole occurs, there arises a more or less conscious and energetic striving to develop the personality into a work of art, such that every single moment and every power shall have its appointed place and its due right. In such a personality, no element is considered purely and simply as a means; it is also at the same time an end. That which acts as a means or transitional factor in the

development of the personality, must also as far as possible possess worth in itself. This is the *ever memorable basic idea of the Greek (Platonic-Aristotelian) Ethics* of the harmonious unfolding of the soul as the supreme end, a basic idea which has peculiar importance in view of the tendency of modern culture to isolate or to mechanize the single elements of life. Rousseau and Schiller revived this ancient doctrine in opposition to the modern slavery to work, no less than to sentimentalism and decadence.

But the problem of continuity crops out again, and in a very acute form, in the question as to whether a single person can create for himself a rounded and completed world, and whether, if so, it would be valuable. Not only must the individual always stand in reciprocal relations with other personalities in order to have means for his own development, but there is also a need of devoting oneself that may appear under various forms, and that may lead

one to attribute immediate worth to other personalities. Hereby the individual is drawn into the great kingdom of personalities, and as, previously, the question was whether the individual elements can cöordinate themselves harmoniously within a single personality, so now the wider question is, how far individual personalities can develop themselves independently and yet in reciprocal harmony, so that there may be a *social organism* (soziale Lebenstotalität) analogous to the individual organism. A continuity of continuity is thus striven after. The test of the perfection of a human society—by virtue of the principle of continuity which here clearly shows its connection with the principle of welfare—is: to what degree is every person so placed and treated that he is not only a mere means, but also always at the same time an end? This is Kant's famous dictum, with another motive than that given to it by him.[58] Stoic and Christian ethics and modern social and political evolution bear in

the same direction. The proclamation of the 'rights of man' (whether we consider them as a symptom or as a programme) issues from this assumption; and the sting of the social question arises from the fact that the assumption has not been fulfilled. This principle also furnishes the standard for the discussion of special ethical and jurisprudential questions. For example, this principle can be laid at the base of monogamy, and of the evolution of punishment.

Ethical work thus shows itself to be a peculiar continuation of the great process of Being. The whole course of thought by which I have sought to establish this point of view meets, however, unexpected difficulties which intensify the ethical problem. So here again we run up against the irrational.

3

(*b*) *The Rationality of our Ethical Evaluations*

Ethics would be a more complete science than it is if the carrying out of the principle of continuity did not encounter so many difficulties as it does.

Every ethical reasoning has validity only so far as the disputants recognize a definite primordial value which determines all more special goods. One may take the standpoint of the single instant, or of the single impulse, or the standpoint of the isolated personality, or that of the family, the class, the state, or of mankind. The question is, whether all such standpoints can be brought into real harmony with one another, as we have above assumed; and, especially the question arises, whether it is possible by means of argument to convert to one of the other standpoints those who consistently and imperiously hold fast to a single one of them.

Probably a rational relation might be demonstrated between the standard of value and the special values, so that a person who recognizes a certain standard and is sufficiently acquainted with the actual conditions under which it holds good, could also be logically compelled to grant whatever conclusions might be deduced from that standard. Thus self-assertion and abnegation have each its logic, as well as family-feeling and national feeling. But how about the *transition from one standard to another?* Here inner consistency does not suffice; for consistency can only unfold and bring to consciousness what, under given actual conditions, should follow from the standard. Socrates became the founder of Ethics by his demand for self-knowledge, which, in fact, was only a demand for a clear understanding of one's own standard of good and of the results consistently flowing from it. But he did not closely examine how the standard is obtained, or whether there are not really several standards

which might each lay claim to be the fundamental one.

A standard of value grows up by means of psychological and historical processes that involve other factors than logical consistency and knowledge of facts. Through experience and association, motives and values get supplanted and displaced, so that one standard may pass over into another; but *while* the change in the feelings and will is going on, it will be useless to argue from principles which will appear to be such only at the end of the process. In education, one cannot argue with a child on the presuppositions of an adult; the child must first have worked out those presuppositions. And so it is in the great educational process taking place in history. *During* education and evolution, there are naturally other vital motives at work than those which come out as the result of the whole process. The pupil will therefore never rationally understand the system according to which he is being educated. "Who can speak of its

future food to the caterpillar crawling in the dust?"

In history there is no gently advancing education from primitive to higher standards of worth, *i.e.* to standards which *will be called* higher by those who shall have attained to them. History is the great voting place for standards of value. In it, individual stands against individual, the individual against society, and one society against another; and a new standard often establishes itself in the hearts of men only after fierce struggles. A pertinent example is afforded by the way in which the conquests of Alexander the Great and of the Romans paved the way for the advance of a more universal humane feeling. During great conflicts, ethical reflection can only indirectly take a hand, by drawing the distinctive consequences of each point of view, and illustrating their meaning by as many experiences as possible, — in a word, by furthering self-knowledge in the Socratic sense. In war or in education, we have to do with art;

science is not enough, however important its contributions may often prove to be.

Because we reach the boundary where scientific ethics stop, still we by no means on that account abandon the principle of continuity. Where it is not possible to follow continuity farther in its purely ethical form, we attempt to track it down in its psychological and historical form. Ethics at this point passes over into psychology and sociology.

In my own 'Ethics' I have sought to show that *justice*, conceived as an inward harmonious relation between self-assertion and self-surrender, and also between feeling and thought, is the highest trait of character. But this has been contested by philosophical thinkers on the ground that self-assertion and self-surrender are such opposite tendencies (or, as I should say, primordial values), that it is impossible to combine them in any one unifying conception.[60] And in popular literature self-surrender (altruism) has been as uncompromisingly proclaimed by Tolstoy

as self-assertion has been by Friedrich Nietzsche. This is an example of a conflict between standards of worth which are both urged simultaneously. In our actual human life, there is apparently a constant oscillation going on between these two antagonistic poles. In the species as a whole, self-assertion no less than altruism has its function to perform. The worth of the single oscillation toward the one direction or the other will always depend upon whether it conduces to an order of life in which every personality can develop as characteristically and independently as possible, so as to thereby render the most aid in the similar evolution of other men. In single individuals, self-assertion and altruism stand in the most various relations to each other, and their harmonization — in which, in my opinion, Justice consists — will therefore present the most divergent shades and tones in different men and at different times. But this variety also belongs to the richness of life — and to its con-

tinuity. The multiplicity of shades of difference is a condition of *relation and connectedness*, and distinguishes the system in which these prevail from that dead uniformity which neither from an ethical nor from any other standpoint possesses any worth whatever.

4

Another difficulty bound up with discontinuity springs out of the fact that the conclusions, which under certain conditions are deduced from a standard of worth, must be applied to individuals who *present the most diverse inner and outer facilities* for the fulfilment of demands based upon such deductions. Endowment and impulse are not the same in all individuals, either in kind or in degree. One and the same demand applied to different individuals may enjoin upon each of them an entirely different ethical task. The starting point and initial velocity are different. Some individuals may be well on the way to the involuntary fulfilment of the de-

mand, before they are even conscious of its existence; while others must laboriously struggle in order barely to start. The law, the demand, must therefore be differentiated according to the different individuals, if it is really to be identical for all. Each one should be taxed according to his ability. There must be a thoroughgoing individualizing of the ethical demand, lest Ethics itself transgress the dictum that personality is always an end, never a mere means. The ethical demand must be no abstract or external command, but should correspond to the ethical possibilities of the individual person, and be adapted to develop them. Legislation and pedagogics cannot at this point be absolutely sundered. But in individual cases this makes ethical decisions difficult.[61] Here again the world — the world of personalities — is great, and our mind is small. Ethical thought can formulate no law that could be applied offhand to all the manifold emergencies of life. Nevertheless, we must

assume that in every individual case only a single decision can be the completely right one. "Wide is the world and narrow is our brain:" our ethical thought courses along the narrow path which leads to ethical truth, and presses toward it amid continual battles with the irrationality that we seek to outflank and elude by ever nearer approaches to our goal. Here, as in the problem of knowledge, we end with no absolute conclusion, but we hear still an 'excelsior!'—even after our thought has strained itself to the utmost.

B. The Religious Problem

5

The very fact that a religious problem exists shows the importance of continuity. For the fact that religion has become a problem is connected with the fact that a division of labor, a differentiation, has taken place in the realm of the psychic life. During its classic times religion appears as the sole, concentrated

form under which all demands of the mental life find satisfaction; religion as such is not only succor and consolation, but also poetry, morals, and science, or at any rate, it is in a position to take these interests organically into itself. Since these different interests have emancipated themselves and have developed according to their own laws, the question has arisen, whether the mental life — as far as it has to do with values — has preserved its continuity during this passage from concentration to differentiation. We have no reason to doubt that there is in the process a psychological and historical continuity; but by the transition has not some value been lost out of human life?

The replies to this question are extremely varied. Some are satisfied with the fact that the same dogmas are taught now as in former times. In other circles it is retorted that this dogmatic continuity signifies nothing; the essential thing is whether life is lived in the same way, whether there is

an ethical continuity, whether 'the Christianity of the New Testament' still exists. Finally, some think that with the cultural-historical division of labor the times of religion have been left behind, and that, far from indicating a loss of worth, this is a real gain for our inner life. In addition to these opinions, which again may take on various shadings, there is a series of still other points of view.

The answer to the question naturally depends on what we hold to be the essential thing in religion. Continuity cannot consort with traits that divide the various religions and religious attitudes from one another. One must search out the deepest underlying tendencies, which may reveal themselves under extremely different forms, and which perhaps are able to operate even after the cultural-historical division of labor has come into force. This is the task of the philosophy of religion; and it seeks to discharge it chiefly in two ways. First, it institutes a comparison between religion

and the other sides of our mental life, in order to find out in which region of life religion makes its home; it seeks to determine the psychological location of religion. Secondly, it institutes a comparison between the most important historical forms of religion, in order to find out whether the ascertained psychological definition is confirmed by experience.[62]

In both comparisons we shall have occasion to see, not only that the principle of continuity is concerned with setting the religious problem, but also that the notion of religion itself is very intimately bound up with this principle.

6

Religious feeling can be brought into a simple enough relation to other feelings, if one conceives it as determined by the experiences which man has as to the *fate of values*, of the various things that he regards as having worth, in the world of reality. By thus considering it, its difference from, and at

the same time its connection with, the other feelings are set in relief. Every one of our feelings answers to some value. Thus the feeling of life, the intellectual, the æsthetic, and the ethical feelings express the worth of different kinds of things. The conservation and development of life, truth, beauty, and goodness are realms of value in which man can participate without religious feeling. But if it becomes evident that life, truth, beauty, and goodness must fight in order to maintain themselves in the world, then there arises a peculiar feeling, no longer determined by these ideals *per se*, but by the more general question of whether these and similar ideals are destined to be preserved and cared for, or are doomed to decay. The experiences which man has in this regard may create a desire to believe that the values remain, even when they no longer disclose themselves in the world visible to man, or even if they no longer appear under the same forms as hitherto.

Man will at first be most inclined to sup-

pose that the enduring thing of worth is the same which he has hitherto enjoyed; but in his evolution he may come to the conviction that some of the goods of his experience must go under, in order that a higher and more comprehensive system of goods may be secured. From the ideas of men about a world of Gods and about a future life, we ascertain which goods have been most valued by them, and to what degree they have reconciled themselves to the thought that particular values must undergo a metamorphosis in order that a general preservation of value itself may be attained. Finally, what is supposed to persist and be preserved may take a form that no eye hath seen nor ear heard. Religious faith asserts a continuity in the realm of ideals that may go beyond any and every possible experience. The continuity thus asserted may be of diverse content and compass. But there will be a tendency in us to extend its sway beyond the human world and to treat our mundane existence as a nursery

for the evolution and the conservation of ideals. This religious doctrine of continuity is formed analogously to the intellectualist presupposition of the rationality of Being (Chapter III), and has similar difficulties to encounter.

Religious faith will especially display a certain similarity (and a certain sympathy) with metaphysical idealism (IV, 4). But they do not stand or fall together. The essence of religious faith is not the intellectual satisfaction which it may bestow. The *ideas* by means of which religion expresses itself do not belong to its innermost psychological nature. If our psychological definition is correct, the core of religion is an interest of feeling and will. Intellectually, we only ask about the classification of things, their mutual consecutiveness or rationality, and their causal linkage (III, 1). Faith is only an *object* of science, is not itself science. It arises from the harmonious or inharmonious relation between the realities which our understanding shows us to be actually given

and the goods which appear to man to be the highest.

Possibly the distinction which we are compelled to make between the real and the good, only holds from a human point of view. But, for the present, we can take no other point of view.

The faith in the conservation of values may itself acquire a value, both because it braces the spirit of man during the struggle for life, and because it spurs him on to find new goods as equivalents of vanishing ones. Even one who is of the opinion that the times of religion have gone by — an opinion which must be epistemologically, psychologically, and ethically grounded, if it is to be more than an assertion or a wish — will still feel the necessity of finding equivalents for the loss of belief in those goods which the vanishing of religion entails. In this sense there exists a religious problem even for one who thinks that the kernel of religion disappears along with its shell. Religion, in other words, because

it maintains the conservation of values, has a value itself, a value of the second order. It is one of the most concentrated forms of psychic life which experience exhibits. Where it is genuine and original, it appears as the combined result of human feeling and will; and it bodies itself forth by means of the most powerful and exalted forms of imagination of which the mind of man disposes. Probably this concentrated vital process will always be revealing itself in new forms, — one may then continue to use the name religion for them, or not, as one pleases.

7

A confirmation of the characteristics of the essence of religion, as depicted above, is to be sought in the fact that the differences of religions or of religious points of view can be simply and readily explained by those characteristics. These differences, in fact, rest in part on differences in the ideal goods whose conservation is believed in; in part on differences in the underlying con-

ception of reality; and in part on differences of experience as to the relation between the ideal goods and reality.

The differences respecting ideal goods show themselves in historical religions in what is considered to be the task of the Gods, — in what they are thought of as battling against; or else, to use a saying of Plato, in that *which makes God godlike*.[63] This may be the purely physical preservation of life along with its accompanying enjoyments or it may be the Good, the Beautiful, and the True. The historian of religion holds up the transition from natural religion to ethical religion as the most important step in the history of religion. This transition, however, rests directly upon a transition from the more elementary to the more ideal standards of worth, as what we suppose particularly to underlie our relation to the gods, — what the gods protect and what gives to them their very divinity. At the same time, the more external relation between man and the powers

which, as he believes, protect him, gives way, and the gods themselves become immediate representatives of the goods placed under their surveillance, — become, indeed, one with them. In the evolution of religion, there can be traced an even more intimate connection of religion with Ethics, and religion consequently tends to become increasingly a projection of our ethical ideals.

When advancing knowledge entails changes in *our beliefs concerning reality*, there must also be changes in the character of religion no less marked than when the fundamental standards of value change. The most striking religious crises proceed from new conceptions of reality. Religion has in these cases usually held herself aloof from knowledge developed in other ways, but has afterward sought to absorb it and use it for her own symbolic purposes. Thus, little by little, animism, astronomy, the doctrine of the transmigration of souls, the Indian and Greek philosophies, Copernican-

ism, and modern natural science and philosophy have each in turn been seized, now as welcome forms of religious thought, now as expansive impulses, or, again, as hostile tendencies.

But the decisive point will always be *the relation between the ideal goods and reality*. According as this relation is harmoniously or inharmoniously adjusted in the experience of man, religion assumes a different character; in the highest religions the discords as well as the harmonies of life find place; in these religions, the religious sentiment attains sublimity and firmness only if it has worked up through struggle and suffering to blessedness. The strength of the discords accordingly only measures the strength of the triumphant harmony. And here yet another consideration enters. Religion possesses a different character according as that which possesses highest worth is thought of as eternal and exalted above all becoming and all change, so that the temporal life is in the end only

an illusion; or as that which possesses supreme worth is itself held to evolve in the course of ages and to battle for its own preservation during the changes which take place. On this distinction rests the antithesis between the Indo-Grecian and Perso-Christian types of religion.

Thus it appears to be no external standard which we apply when we characterize and appraise religions according to the manner and the degree in which the principle of the conservation of values appears in them. Such a standard naturally emerges from a comparative consideration of the history of religions and of religious points of view.

The second of the two religious types named has come off victorious in history. But assuredly it has not yet reached its definitive form. If it is to take on new forms, then in the future, as in olden times, we shall be indebted to prophetic personalities; only such as they can weave a new garment for Deity.

To the philosopher, it is of the greatest interest that the religious problem, so long as it exists, stands in such close connection with the demand for continuity, with the notion of time, and with the question of ideal goods. The affinity and intimate connection with each other of the great problems of the human soul, practical no less than theoretical, stand out here in bold relief.

In all our problems, we end — if we view the antithesis in its acutest form — with an interminable conflict into which the mental powers of man must ever plunge anew. But while we cannot solve definitively these great problems, still we can descry the road that leads onward and forward, so that the rights of both our thought and our life are safeguarded. The insolubility of the problems really only means that, no matter how far we may penetrate in our research and thought, new horizons, new goals, and new tasks always rise before us.

NOTES

1. Page 4. Ch. Renouvier, *Les dilemmes de la métaphysique pure.* Paris, 1901. P. 202.

2. Page 5. These four problems include the triple division emanating from the Platonic school (according to Sextus Empiricus: *Adv. mathematicos*, VII, 16 by Xenokratos) into logic, physics (*i.e.* cosmology), and ethics, with the addition of the psychological problem, which has in modern times pressed forward to an independent point of departure.

3. Page 9. Cf., in addition to the work by Renouvier named in note 1, Emile Boutroux' interesting works: *De la contingence des lois de la nature*, 2d ed., Paris, 1895, and *De l'idée de loi naturelle dans la science et la philosophie contemporaines.* Paris, 1895. A kindred point of view is taken by Rudolph Eucken in *Der Kampf um einen geistigen Lebensinhalt.* Leipzig, 1896.

4. Page 12. Th. Lipps, *Psychologie, Wissenschaft und Leben.* München, 1891. As to Fries and Beneke see my *History of Modern Philosophy*, II, pp. 241, 259.

5. Page 16. See my *Psychology*, V, A, 2.

6. Page 19. Cf. my paper: *La base psychologique des jugements* (*Revue philosophique*, Oct.–Nov., 1901), § 8 and § 33.

7. Page 21. For the point of view of modern positivism regarding this problem in contrast to the point of view taken by Comte and Stuart Mill, interest attaches

to Roberto Ardigo's essay: *L' unità della coscienza.* Padova, 1898.

8. Page 22. Cf. my *Psychology*, I, 8 *d.*

9. Page 23. Münsterberg, *Psychology and Life.* Boston, 1899. Münsterberg adheres to the view made current by Windelband and Rickert, according to which there is a chasm between natural sciences (in which psychology is ranked) and the cultural sciences. On this view see the excellent remarks by Wundt, *Introduction to Philosophy*, Leipzig, 1901, pp. 65–74, and by Guido Villa, *Psychology and History* (*The Monist*, Jan., 1902).

10. Page 24. Münsterberg, *l.c.* p. 282: "If we force the system of science upon the real life, claiming that our life is really a psychophysical phenomenon, we are under the illusion of psychologism. If, on the other hand, we force the views of the real life, the personal categories, upon the scientific psychophysical phenomena, we are under the illusion of mysticism. The results on both are the same. We lose the truth of life and the truth of science."

11. Page 27. Descartes (*Synopsis meditationum*) teaches that all substances are unchangeable; only body taken in general is substantial, not, *e.g.* the human body. Every soul, on the contrary, is pure substance, does not change, however much its single accidents (thoughts, feelings, and will-manifestations) may change. In his work *Cogitata metaphysica* (II, c. 11) Spinoza says (from the Cartesian point of view, which he essentially adopts in this work): Si ad totam Naturam materiae attendamus, illi nihil novi accedit; at respectu rerum particularium aliquo modo potest dici, illi aliquid novi accedere. Quod an etiam locum habet in rebus spiritualibus, non videtur: nam illa [*sc.* spiritualia] ab invicem ita dependere non apparet [souls are not so

dependent on one another as bodies]. Later, Spinoza reached another conception.

12. Page 27. Availing himself of an exposition of the 'active reason' of Aristotle, Averroes taught (see on this point Renan's *Averroës et l'Averroïsme*. Paris, 1852), that while the individual souls arise and pass away, the *intellectus universalis* remains, the world-thought, which operates in the thought of single souls. In the middle ages this doctrine was revived, among others, by Siger von Brabant in his *Quaestiones de anima intellectiva*, recently edited by Mandonnet. (Mandonnet: *Siger de Brabant et l'Averroïsme latin au 13e siècle*. Fribourg, 1899.) The whole doctrine of the conservation of mind goes back to Neoplatonism (see Plotinus, *Ennead*, V, 9, 6). On Spinoza's doctrine of the infinite intellect and the idea of God, see *History of Modern Philosophy*, I, p. 312 ff.; on Hegel, *ibid.* II, p. 174.

13. Page 29. Maxwell, *Scientific Papers*, Cambridge, 1890. Vol. II, p. 759. A little above the extract cited, Maxwell remarks that, while men to-day have generally given up the idea that the soul can be located anatomically somewhere in the brain, the idea has held sway longer, that if we could follow back the material processes far enough, we could arrive at a material process which was worked by the soul. Against this possibility the citation is directed. Cf. Spinoza, *Ethics*, III, 2, Schol. — Maxwell's conception of the law of inertia in his *Matter and Motion*, § 41, leads to a similar result as his conception of the law of energy. Cf. my *Psychology*, II, 8.

14. Page 30. Carl Lange, *Nydelsernes Fysiologi*. Kjöbenhavn, 1899. P. 45.

15. Page 32. Münsterberg, *Psychology and Life*, p. 127: "Mental facts, as they are not quantitative, cannot enter into any causal equation."

16. Page 34. Flechsig, *Gehirn und Seele*[2]. Leipzig, 1896. P. 24 f.

17. Page 35. Cf. the criticism of the theory of Flechsig by O. Vogt, *Flechsigs Associationzentrenlehre, ihre Anhänger und Gegner*, *Zeitschrift für Hypnotismus*, V, 6; and Alb. Adamkiewicz, *Die Grosshirnsrinde als Organ der Seele*. Wiesbaden, 1902. P. 75 f.

18. Page 37. Münsterberg, *Psychology and Life*, p. 162: "The reality of the will and feeling and judgment do not belong to the describable world." — P. 208: "The subjective attitude is never object; it is never perceived."

19. Page 42. *History of Modern Philosophy*, I, p. 356 ff.

20. Page 44. Cf. my *Psychology*, V, B. 6.

21. Page 51. See the interesting discussion of *Le parallélisme psychophysique et la Métaphysique positive*, in the Bulletin de la société française de Philosophie, Juin, 1901. Bergson remarked during this discussion and elsewhere (p. 51): "Étant donné un état pyschologique, la partie jouable de cet état, celle qui se traduirait par une attitude du corps ou par des actions du corps, est représentée dans le cerveau: le reste en est indépendant et n'a pas d'équivalent cérébral. De sorte qu'à un même état cérébral donné peuvent correspondre bien des états psychologiques différents, mais non pas des états quelconques. Ce sont des états psychologiques qui ont tous en commun le même schéma moteur."

22. Page 54. I have introduced an example of this in my *Psychology*, 3d German edition, p. 80, note.

23. Page 55. Cf. my *Psychology*, VII, B, 4. — *Über Wiederkennen* (*Vierteljahrsschr. für wissenschaftl. Philosophie*, XIV, pp. 293–316). — *Sören Kierkegaard som Filosof*, pp. 74–81. — Ebbinghaus, *Grundzüge der Psy-*

chologie, I, p. 168 (cf. also his article in the *Zeitschrift für Psychologie*, XI, p. 201), and Ehrenfels, *Werttheorie*, I, pp. 245–249, argue from the imperceptibility of the will, that the will is no particular psychical element. Cf. my criticism of the last work, in the *Göttinger gel. Anzeigen*, 1900, p. 742 f.

24. Page 57. See fuller treatment of this point in my *Psychology*, II; IV, 7 *e*; V, B, 5; VII, A, 1; B, 4–5.

25. Page 59. Ostwald attempts in his *Naturphilosophie* (Leipzig, 1902) to show that the concept of energy is the fundamental concept of natural science, and since manifestations of consciousness are also (after Kant) to be conceived as activities, energy also becomes the fundamental psychological concept. On the relation of the two kinds of energy to one another he does not express himself clearly. In one place the processes of consciousness themselves are called 'energetic' (p. 394), at another he says that consciousness is conditioned by the energy of the nervous system (p. 396), and again mental energy is defined as 'conscious *or* unconscious nerve energy' (p. 398).

26. Page 61. On the different kinds of recognition see my paper *Über Wiederkennen* (*Vierteljahrsschr. f. wiss. Phil.* XIV, p. 38 f.).

27. Page 62. See *La base psychologique du jugement* (*Revue philos.*, Oct.–Nov., 1901), § 20.

28. Page 65. See *ibid.* chap. VI.

29. Page 69. Hobbes, *Logic*, chap. 3, §§ 8–9; *Physics*, chap. 25, § 1. (Nevertheless Hobbes teaches in another place that it is analysis of the given data that leads us to principles: Analytica est ars ratiocinandi a supposito ad principia, id est ad propositiones primas vel ex primis demonstrandam. *De rationibus motuum et magnitudinum*, chap. 20, § 6.) — Fichte, *Grundlage d.*

gesamten Wissenschaftslehre, § 1. — S. Kierkegaard, *Uvidenskabelig Efterskrift*, p. 83. See my work: *Sören Kierkegaard als Philosoph.* (Frommann's *Klassiker der Philosophie*), 2d ed., p. 67. — Kroman, *Vor Naturerkjendelse*, p. 270 ff.

30. Page 71. Ernst Mach, *Beiträge zur Analyse der Empfindungen*, p. 144.

31. Page 71. Maxwell, *Scientific Papers*, II, p. 360. — H. Hertz, *Einleitung* (*Werke*, III, p. 1 f.). — Cf. an interesting discussion *De la valeur des lois physiques*, in the *Bulletin de la société française de philosophie*, Mai, 1901.

32. Page 80. *Kritik der reinen Vernunft*, p. 653.

33. Page 83. *History of Modern Philosophy*, II, pp. 125 f., 245–6.

34. Page 84. The expression 'static concept of truth' was used — with a somewhat different motive — by Louis Weber in the philosophical congress at Paris in 1900.

35. Page 86. *History of Modern Philosophy*, I, pp. 177 f.

36. Page 89. See note 31.

37. Page 91. H. Hertz, *Über die Beziehungen zwischen Licht und Elektrizität*, 1889, p. 29. — Boltzmann's Address before the meeting of German scientists, 1900 (translated in *The Monist*, Jan. 1901: The recent development of method in theoretical physics), and his paper in the *Übersichten der Wiener Akademie*, chap. V, 8 (translated in *The Monist*, Oct. 1901: On the necessity of atomic theories in physics). — Cf. on this whole question also C. Christiansen, *Den elektromagnetiske Lysteori* (*Det danske Vid. Selskis Oversigter*, 1889), and the same author in *Fysisk Tidsskrift*, I, pp. 4–5.

38. Page 92. Maxwell, *Scientific Papers*, II, pp. 26–

33, 302–305 (where he shows for what he is indebted to Faraday and Lord Kelvin), 326, 777 f.

39. Page 93. Cf. *Über Wiederkennen* (*Vierteljahrsschr. f. wiss. Phil.* XIV).

40. Page 93. On this point we cannot grant the case to Ostwald when he tries to trace back everything in Nature to 'energy.' Mass as well as space, weight, and chemical properties are to be derived from the concept of energy. It is quite correct that all these concepts presuppose the concept of energy; but is it the only fundamental concept in natural philosophy? Then one ought also to be able to derive 'geometrical' properties from dynamic; but Ostwald does not attempt this. In his volume on *Die Überwindung des wissenschaftlichen Materialismus* (1895) he defines matter as "a spatially (*sic*) ordered group of different energies" (p. 28). This spatial order, which is here recognized as of special moment, he seems to me to push a little to one side in his *Naturphilosophie* (1902), in which the 'energetic world idea' is developed. The chief doctrine on which he builds his system is, however, as follows: "Every process without exception can be exactly and exhaustively expounded and described, by declaring which energies experience temporal and spatial (*sic*) changes" (p. 152). That the concepts of energy and of time cannot be separated from one another is self-evident, because energy means the capacity to overcome opposition, and all overcoming lays claim to time. The connection of the concept of energy with spatial changes is not so self-evident. This connection is derived by Ostwald simply because he has taken the concept of energy from spatial phenomena by investigations as to the changes in definite parts of space. Only the fact that he leaves this geometrical element heedlessly in his

concept of energy makes it possible for him to believe that this concept is to be accepted at face value as the same for psychical phenomena as for physical, so that the problem of 'souls and bodies' would be solved by setting up the concept of energy. See above, note 25.

41. Page 96. Hume, *Treatise on Human Nature*, I, 3, 6: "Your appeal to past experience decides nothing in the present case, and at the utmost can only prove, that that very object, which produc'd any other, was *at that very instant* endow'd with such a power."

42. Page 97. *Critique of Pure Reason*, p. 181: "By this basal doctrine [the doctrine of causality and the related principle of the conservation of 'substance' and of the reciprocal action of everything that exists] we shall be justified in putting together phenomena only *according to the analogy of the logical and general unity of concepts*." — P. 180: "An analogy of experience will thus only be a rule, according to which unity of experience shall come out of perceptions, and as the principle of events (phenomena) be valid not constitutively but merely regulatively."

43. Page 98. F. H. Bradley, *Appearance and Reality*, London, 1893, chap. 4–7, 18. — Bernard Bosanquet, *Logic, or the Morphology of Knowledge*, Oxford, 1888, Book I, chap. 6.

44. Page 100. Rich. Avenarius, *Kritik der reinen Erfahrung*, II, pp. 332–339. — Ernst Mach, *Zur Analyse der Empfindungen*, p. 168: "The fact of the irreversibility of time reduces itself to the fact that the changes of value of physical magnitudes take place in a *definite direction*. Of the two analytical possibilities only one is real. We need not see in this a metaphysical problem." Cf. on these theories Heinrich Grünbaum, *Zur Kritik*

der modernen Kausalanschauungen (*Archiv für systematische Philosophie*, 1899, pp. 392–409).

45. Page 102. Bosanquet also concedes this: "*At any given moment* we have no choice but to say, that the future is conditioned by the past, . . . effect by cause." *Logic*, I, p. 272.

46. Page 104. *La base psychologique du jugement*, § 27.

47. Page 106. Jevons, *Principles of Science*, 2d ed., London, 1877, p. 43. (De Morgan had already pointed out, as Jevons remarks, that we customarily think and argue within a limited world or sphere of ideas, even though this is not expressly declared.)

48. Page 107. Francis Bradley has clearly discerned the opposition between time and 'the Absolute,' when he declares: "If time is not unreal, I admit that our Absolute is a delusion" (*Appearance and Reality*, p. 206). "The Absolute has no seasons" (*ibid.* p. 500). — The criticism of a speculative theory and the reaction against it consequently often utilizes the reality of time as a main argument. Cf. C. H. Weisse's and S. Kierkegaard's relation to Hegel. (*History of Modern Philosophy*, II, pp. 267, 286–7.) In a brilliant volume, *Tidsexistensens Apologi Et stycke relationsteorie* (Upsala, 1888), Pontus Wilner has attempted to shatter the 'Either—Or' here exhibited. He tries to show that the highest completeness can only be reached by the successive unfolding of qualities which would mutually exclude one another if simultaneous. But the question of the limitation which inheres in the very succession is thus not raised!

49. Page 111. See my paper: *Die Kontinuität im philosophischen Entwicklungsgange Kants* (*Archiv für Geschichte der Philosophie*, VII).

50. Page 113. Cf. *La base psychologique du juge-*

ment, §§ 24 and 27, and, with reference to religious conclusions, my *Religionsphilosophie*, pp. 64–68.

51. Page 114. See my paper: *Philosophy and Life* (*International Journal of Ethics*, XII, p. 146). — On the imaginary in the epistemological sense, see Wundt, *System der Philosophie*, pp. 195–199.

52. Page 119. Cf. on this point my *Religionsphilosophie*, pp. 54–63. — In the epistemological section of the *Religionsphilosophie* I have already expounded my conception of the problem of Being and its treatment.

53. Page 124. Goethe, *Farbenlehre*, pp. 124, 175–177. Cf. *Conversations with Eckermann*, 18 Feb. 1829, 21 Dec. 1831. — Goethe applied this idea not only in the realm of the theory of colors, but also to magnetism and botany. See *Sprüche in Prosa* (On Natural Science) and *Conversations with Eckermann*, 27 Jan. 1830. — From his *Nachträgen zur Farbenlehre* it is evident that Hegel took up with avidity the idea of type-phenomenon as Goethe had expounded it.

54. Page 129. See my paper: *Philosophie als Kunst* (*Ethische Kultur*, 1894). On Schopenhauer and Lange, see *History of Modern Philosophy*, II, pp. 233 f., 547 f.

55. Page 142. See *History of Modern Philosophy*, II, p. 180 f. It is characteristic of the English thinkers who have most recently dealt with some of Hegel's fundamental ideas, to concede that the argument here is much more of an analogy than a proof. Francis Bradley never considers the analogy as permissible; according to him, the highest reality cannot be called either soul or body, although the soul more than the body possesses that combination of extent and unity, that 'self-consistency' which is the mark of true reality (*Appearance and Reality*, pp. 307, 359). — In his article on *Hegel's treatment of the categories of the idea* (*Mind*, 1900,

p. 149 f.) McTaggart concedes that we only have a single example of the category 'Geist,' which according to Hegel possesses theological or cosmological significance. — If a distinction is made (as by A. E. Taylor in *Mind*, 1900, p. 245) between two idealistic schools, the one standing near Leibniz and Lotze, and the other holding by Hegel, then I must emphasize the fact that it is the first of these two schools that has most clearly discerned the real philosophical basis of metaphysical idealism. (Taylor himself even acknowledges that in both schools an analogy with the mind of man is fundamental when he says that both are agreed in "the main principle that it is in mind, and nowhere else, that we are face to face with the central reality of the universe," *ibid.*)

56. Page 145. Compare on this type my *Religionsphilosophie*, pp. 47 f., 118 f., 277 f.

57. Page 155. In my *Ethik* (2d ed., p. 27 f.) I went no deeper into the relation of the notions of worth, of purpose, and of the norm. But see, on the other hand, *La base psychologique du jugement*, § 27 (cf. § 37), and my *Religionsphilosophie*, p. 10 f.

58. Page 163. Cf. my *Ethik*, 2d ed., p. 164 f.

59. Page 167. Cf. my *Psychology*, VI, B, 1–5. *Ethik*[2], XIII, 4.

60. Page 169. Francis Bradley, *Appearance and Reality*, pp. 414–418. — A. E. Taylor, *The Problem of Conduct*, London, 1901, p. 201.

61. Page 172. Cf. my *Ethik*[2], p. 69 f.

62. Page 176. In my *Religionsphilosophie*, for the sake of a more comprehensive illumination of the problem, I introduce beside the psychological-historical inquiry also an epistemological and an ethical inquiry. In this shorter exposition I dwell especially on the psychological-historical inquiry, pointing out only casually

and very briefly the epistemological and ethical points of view.

63. Page 182. Plato, *Phaidros*, S. 249 C. (πρὸς οἷσπερ Θεὸς ὢν θειός ἐστι). Literally rendered, "that, to live in which is the divinity of God."

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